

World Financial Markets

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The world economy post
October 19, 1

Growth and inflation prospects
for 1988, 4

Financing the U.S. current
account, 7

Financing the future, 10

Assessment, 13

Statistical appendix, 15

The world economy post October 19

Mid-December found equity price indices down from the end of September, when world equity markets were near their peak, by 13% in Japan, 18% in Canada, 27% in the United States, 30% to 35% in the largest European markets, and 45% to 50% in some Far Eastern ones (see Table 1). Declines of these magnitudes deter consumption and investment as individuals and corporations become more cautious, save more, cut expenditures, and delay investment. As a result, most analysts have lowered their 1988 GNP growth projections, especially for the United States, where direct stock ownership by individuals is relatively widespread and savings rates are at rock bottom. If, as conventional wisdom holds, a one-dollar decline in U.S. wealth depresses consumption by five cents within six quarters, this autumn's decline of equity prices could cut U.S. growth next year by a full percentage point. (In the United Kingdom, the other country where forecasters seem to agree that the direct wealth effect could be significant, the reduction would be about 0.3%.)

However, the linkage between stock prices and economic performance is less certain than any simple rule may suggest. To focus ex-

clusively on the autumn decline overlooks the fact that since last December, Japanese equities have risen 16%, U.S. and U.K. stock indices are roughly unchanged, and the largest declines — of 30% to 40% — have been seen in Continental Europe. Yet, while overall world equity market valuation has contracted by about \$1.4 trillion since September, it still stands about \$0.6 trillion ahead of last year's level, thanks mainly to gains in Japan. Thus it is not clear that all consumers feel poorer. Of course, any new round of major declines almost certainly would cut enough into earlier market profits as to reduce consumers' sense of well-being.

Measuring stock market valuation declines relative to GNP provides useful insight into their economic impact (see Table 2). While the U.S., Japanese, and Canadian valuations are each down by around 15% of GNP, European valuations have been much harder hit since September; among the major countries, the United Kingdom — where foreign ownership of stocks appears to be higher than in Continental Europe — shows the greatest loss in GNP terms measured from the market high. And, despite a relatively small equity market size, the

Table 1
Stock market swings

	Percent change in index*	
	End-Sep 1987	End-Dec 1986
United States	-27	-4
Japan	-13	16
Germany	-35	-39
France	-30	-29
Italy	-24	-32
United Kingdom	-31	0
Canada	-18	6
Switzerland	-35	-31
Australia	-45	-12
Hong Kong	-50	-21

*Morgan Stanley Capital International.

Table 2

Stock market indicators

	Capitalization* Sep 30, 1987		Change in capitalization as % of GNP** Dec 14, 1987 from:	
	\$ billions	% of GNP	End- Sep 1987	End- Dec 1986
United States	2871	64	-17	-2
Japan	2896	119	-16	15
Germany	255	23	-8	-10
France	185	22	-7	-7
Italy	128	17	-4	-6
United Kingdom	728	118	-36	0
Canada	244	62	-12	3
Switzerland	165	96	-34	-28
Australia	132	68	-31	-5
Hong Kong	84	187	-93	-25

*Morgan Stanley Capital International. Capitalization figures refer to the market value of equities of domestic firms, excluding unit trusts (to avoid double counting).

**These estimates apply the percentage change in the previous table to the September 30 capitalization figures, and express the result as a percentage of nominal GNP in 1987.

decline in Germany's equity capitalization since the end of 1986 has been the steepest relative to GNP among all G-7 countries.

The economic impact of the stock market crash hinges on the policy stance before and after the decline; indeed, U.S. postwar experience puts in question whether a market decline has an independent impact. Thus the bear market of the early 1960s had little effect on consumption, thanks largely to easy fiscal policy and to low interest rates (amid minimal inflation expectations, the Fed funds rate was below 3% from mid-1960 through late 1963). A decade later, the 1973-75 recession followed an oil and non-oil commodity price shock that inspired sharply higher interest rates (the Fed funds rate rose from below 4% in early 1972 to 12% in 1974). The drop in equity prices, which began in early 1973, as much reflected as caused the subsequent economic downturn. Inflation fighting also dominated in 1980-82, when the associated stiff interest rates contributed powerfully to both the fall of equity prices and another deep recession. In 1987 the ill-conceived attempt to peg exchange rates compounded upward pressure on interest rates even as the stock market — particularly in the United States — developed what seems to have been a speculative bubble, driven by new technologies and a wave of takeovers. Dividend and earnings yields on stocks were driven way below the rising yields available in the bond market, culminating inexorably in the stock market crash.

As for policies after the October 1987 crash, the response worldwide has been muted. The monetary response was prompt. With worries about financial disruption and recession dominant, U.S. monetary authorities assured ample liquidity immediately following the crash.

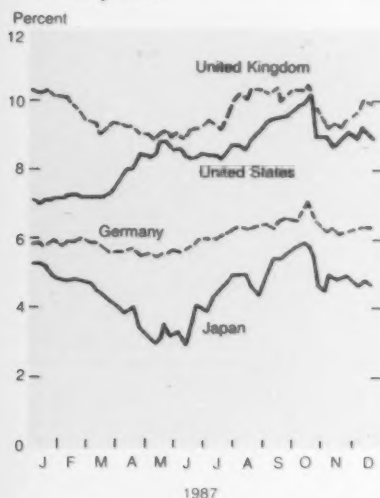
Other central banks did likewise. For example, the Bank of Canada and the Bank of England both stepped forward with alacrity and high visibility. Others — notably, the Bank of Japan and the Bundesbank — were more restrained, judging liquidity already ample. Indeed, in the first two weeks after October 19, the Bundesbank barely altered its approach to the money market, and short-term interest rates fell less than elsewhere. At no time did central banks "flood the market" with liquidity; rather, they made clear that they would meet any reasonable liquidity need.

Interest rates fell worldwide, helped by investors shifting into government bonds and other liquid investments. Many saw capital gains in the bond market offsetting part of their equity losses, even though both bond yields and short-term interest rates remain above the lows of the last eighteen months (see Charts 1 and 2). Larger rate declines in the United States than in Germany and Japan helped carry the dollar lower and with no apparent resistance on the part of the U.S. authorities. Whereas the U.S. stock market managed some recovery, the dollar's fall helped prolong stock market declines into early November in Europe and Japan. By then, intense upward pressures on the mark tilted the Bundesbank to an easier course. The German repurchase rate has since been cut twice and the discount rate once. The latter step, at the beginning of December, was joined by official rate cuts in six other European countries, reflecting rising apprehension over Europe's economic outlook.

Since mid-November, the Federal Reserve has withdrawn much of the added liquidity. Interest rates have crept back up. The U.S. money supply already was growing slowly. M2 rose just 4.2% in the last year, less

Chart 1

10-year government bond yields



than half its growth during 1986 and pointing to a more subdued economy in the next few quarters even before the stock market declined. The Bank of Japan and the Bank of Canada also have returned to a less accommodative stance, reemphasizing their commitments to price stability.

Except in the United States, money growth has picked up this year in most major countries as measured, for example, by the broader aggregates for Japan and the United Kingdom and by Germany's closely watched CBM (Central Bank Money). The pickup has stemmed importantly from the demand for appreciating currencies. Demand recently has been boosted further by the increased general uncertainty following the October stock market crash. Notwithstanding money growth in excess of preset targets, formal or otherwise, failure to accommodate the additional money demand from either source in current circumstances would jeopardize economic activity.

Fiscal policies have changed even less following the crash. In the United States, minimal substantive achievement has come of the initial sense of urgency and the volumes of publicity that surrounded negotiation of a budget package to supersede the cuts otherwise mandated by Gramm-Rudman. The advertised \$76 billion deficit reduction in 1988 and 1989 does not mean that the budget deficit will be \$76 billion lower in 1989 than earlier projections showed; rather, it is the sum of around \$30 billion in cuts in 1988 and little more than their continuation in 1989. The negotiators avoided any hard decisions about meaningful tax increases, let alone difficult expenditure reductions.

Nor have strong domestic and international pressures for fiscal stimulus produced a meaningful package in Germany. The three-

year, DM 21 billion lending program aimed at municipalities and small and medium businesses is likely to lead borrowers to substitute somewhat cheaper government credit for that from the private sector. The only stimulus involved — an interest subsidy — amounts to a negligible DM 200 million per year. No other fiscal policy measures in the major countries have been announced since October. Indeed, spurred by rapid economic growth in the second half of the year, talk of reducing the budget deficit in Japan has resumed.

The absence of significant policy measures following the crash reflects simultaneous concern about recession and inflation. Although these inflation fears are sincere, they have slim justification. As explained below, despite some pickup in 1987, inflation has not developed the momentum to validate the more pessimistic forecasts in the near-term and is quite unlikely to do so during 1988 in an environment of slower economic growth.

In sum, an unclear policy response has been added to the uncertain effects of the stock market crash. Thanks to the fall of the dollar, the weakened prospect for the domestic demand component of the U.S. economy is partly mitigated by the reasonable hope of continued strength from net exports. But these gains will come at the expense of growth in Europe and Japan, whose exports also will be adversely affected by any retrenchment on the part of U.S. consumers. The relatively large fall in European equity prices over the longer term may be indicating a slower growth outlook there than in other industrial economies. Thus the supposed silver lining of the crash, that it would produce a sharp improvement in the U.S. trade deficit by reducing U.S. consumption and boosting exports, may be more imagined than real.

Chart 2

3-month Eurocurrency deposit rates

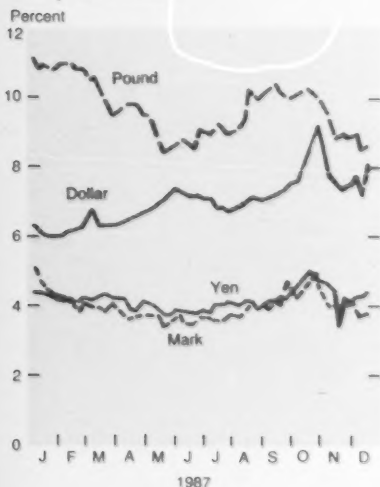


Table 3

Global economic environment
percent change unless otherwise noted

	Projections made in			
	December for		September for	
	1987	1988	1987	1988
OECD real GNP	2.9	2.5	2.6	2.8
United States	2.8	2.4	2.6	2.9
Japan	4.0	3.6	3.2	3.2
Europe	2.3	1.9	2.0	2.2
Germany	1.5	1.6	1.5	2.2
OECD CPI (Dec/Dec)	3.2	3.3	3.3	3.7
United States	4.4	4.8	4.6	5.0
Japan	1.0	1.1	1.1	1.1
Europe	2.9	2.7	3.0	3.5
Germany	1.0	1.0	1.0	1.5
LIBOR, 6-month avg.	7.5	7.8	7.5	8.4
Spot exchange rates (year-end)				
Yen/dollar	125	115	135	115
DM/dollar	1.60	1.50	1.75	1.50

Table 4

Composition of GNP growth
percent per annum

	1987	1988
Domestic demand contribution		
United States	2.4	1.5
Japan	4.5	4.7
Germany	2.2	1.8
Net foreign contribution		
United States	0.4	0.9
Japan	-0.5	-1.1
Germany	-0.5	-0.2
Real GNP		
United States	2.8	2.4
Japan	4.0	3.6
Germany	1.5	1.6

Growth and inflation prospects for 1988

Ambivalent policy responses to the global stock market declines of late 1987 argue that 1988 real GNP growth in the industrial countries on a fourth-quarter/fourth-quarter reckoning may do well to reach 2% — much below the 3.5% pace of 1987. On a calendar year comparison, growth in 1988 may average no more than 2.5%, down from 2.9% for 1987 (see Table 3) and the poorest performance since 1982.

The risks are that the 1988 slowdown will prove more severe. The size of the wealth effects and, more especially, the confidence effects emanating from a global stock market decline of October's magnitude are highly uncertain. Still, they are unlikely to be much smaller than those incorporated here. The world economy could be in for a long, slow loss of momentum. The global scope of the financial downturn suggests that individual economies may be hit first by domestic wealth and confidence effects and then, some time later, by reduced demand from abroad. The likelihood that the United States will be driven to rein in domestic demand for a prolonged period, in the interest of external adjustment, puts in question the timing and strength of any global growth pickup in the medium term.

More immediately, U.S. growth may match the industrial-country average almost exactly in both 1987 and 1988. Spurred by strength in real net exports and business fixed investment, real GNP growth strengthened during 1987 to an unsustainable 4.3% in the third quarter alone. Although both housing and consumption were beginning to exhibit behavior typical of recession, overall domestic demand was too strong to accommodate higher export production and simultaneously reduce the trade balance.

Nonetheless, the continued influence of past dollar declines promised to keep exports strong and rising capacity utilization pointed to fast growth in business investment.

Clearly, some new development was needed to push domestic demand growth in the United States below that abroad in order to reduce the U.S. trade deficit. The stock market decline is expected to help cut domestic demand growth to 1.5% next year from 2.4% in 1987 and over 4% in the third quarter alone. Import demand should slow commensurately. Besides, since mid-October the dollar has fallen a nominal 10% against the yen, 9% against the mark, and a real 4.4% on a broad effective basis against the currencies of all principal U.S. trade partners, with further decline likely in store. The competitive boost for U.S. producers should bolster their home market share and counter any slowing of export demand resulting from reduced growth prospects abroad. Indeed, net export gains should prevent a sharp downturn in overall U.S. economic activity by contributing around 1% to GNP growth in 1988, about double their 1987 contribution (see Table 4).

Japan's domestic demand accelerated during the first three quarters of 1987. In the third quarter alone, real GNP grew at a seasonally adjusted annual rate of 8.4%, with net exports contributing almost a full percentage point and housing investment surging at a near-50% annual rate. Business fixed investment rose 9.3%, furthering the continuing adjustment of Japanese producers to a higher yen and anticipating continued strength in domestic demand. The recent strength of housing is likely to sustain consumption and economic activity

Table 5

Real GNP

percent change from previous year

	1987	1988
United States	2.8	2.4
Japan	4.0	3.6
Germany	1.5	1.6
France	2.0	1.8
Italy	2.8	2.2
United Kingdom	4.0	2.3
Canada	3.7	2.6
Spain	3.8	3.0
Australia	4.2	2.5
Korea	12.5	10.0
Taiwan	10.5	7.5
OECD	2.9	2.5

more broadly well into 1988. Besides, the renewed decline of the dollar may not undermine export performance greatly, since many of Japan's producers apparently have already geared up for a yen-dollar rate of Y120. The mood in Tokyo is correspondingly upbeat, even though the yen's strength is likely to brake Japan's real GNP growth somewhat from 4% in 1987 to around 3.6% next year.

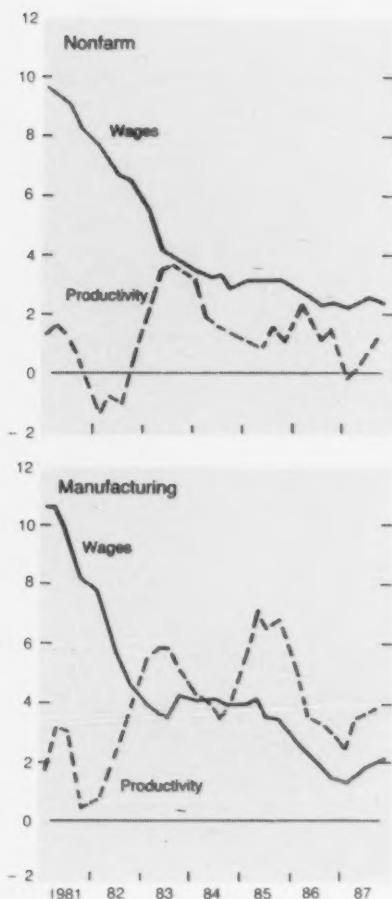
Elsewhere in the Far East, *Korea* and *Taiwan* are likely to continue strong expansion in 1988, on the order of 10% and 7.5%, respectively, for real GNP (see Table 5), provided no recession develops in the United States. Korea's summer wage settlements are likely to add momentum to consumption. In Taiwan, much-delayed government infrastructure spending and some consumption gains are augmenting exports as a source of strength. In both countries, growth dependence on exports has declined less than in Japan, instead being sustained by exchange rate policy. The Korean won has appreciated less than 10% against the dollar over the past two years and, in the face of an unexpectedly high current account surplus, actually depreciated slightly in 1987 in real effective terms. Taiwan's currency, despite appreciating 29% against the dollar since late 1985, is up much less than the yen and most European currencies since the dollar first began to turn. In 1987 alone, while running a current account surplus approaching 31% of GNP, the real effective exchange rate of the Taiwan dollar has risen less than 5%.

With little of the Far East's confidence and resilience, *Europe's* outlook is distinctly troubled. True, several of the larger countries have achieved at least moderate, or even above-potential, growth in 1987, with inflation stable or falling. For example, in the three quarters lead-

ing up to October 19, France, Italy, Spain, and the United Kingdom each grew at annual rates of 3%-4%. Reflecting wage growth, terms of trade gains, and — in the fast-growing countries — confidence, consumption fueled much of the recent rise in domestic demand. Business investment played an important supporting role in most countries, and a leading role in France, Germany, and Spain. In Germany, the United Kingdom, and elsewhere, equity began to play an important role in financing business investment for the first time in decades. Even so, Germany managed real GNP growth of just 2.4% in the first three quarters, aggravating the trade deficits of its faster-growing trade partners and thereby occasioning concern in many.

Because European producers, in contrast to the Japanese, feel less able to withstand dollar depreciation or a U.S. economic slowdown, the pessimism in Europe following the global stock market crash has been greater than in the United States or Japan. This threatens consumer and business confidence. Besides, the higher cost of capital implicit in lower stock prices may prove a drag on investment. For Europe as a whole, domestic demand seems unlikely to strengthen in the year ahead. Real GNP growth could dip from 2.3% in 1987 to 1.9% in 1988, down from the 2.2% expected before October 19. With its investment prospects faltering, projections for 1988 economic growth have been marked down more for Germany, from 2.2% to 1.6%, than for other European countries. As a result, the trade imbalances within Europe are not expected to diminish anytime soon. Pressure on Germany for stimulus has produced meager results so far. The pressure now may be in temporary abeyance but is likely to resume in due course for an EMS

Chart 3

U.S. wages and productivitypercent change from
preceding year

realignment, more policy adjustment within Europe, or both.

A number of other industrial countries are still more troubled. Several, such as Australia, New Zealand, and Norway, have launched on domestic demand restraint to redress inflation or balance of payments problems, but are ill-equipped to cope with much slowing of the world economy. In *Australia*, for example, inflation, if decelerating, has again run above the OECD average this year and the already substantial external debt continued to rise. For much of 1987 domestic demand growth was surprisingly strong as consumers responded to employment gains and reduced income taxes and interest rates. Finally, fiscal policy moved toward restraint, with state governments beginning to join the federal government in retrenching. And in the October crash, *Australia's* stock market was among those hardest hit. The decline there has had wider financial implications, as domestic lenders scrutinize borrowers more carefully and foreign investors become more cautious. *Australia* also is highly vulnerable to any commodity price softening in the event of a greater slowdown in the world economy.

At best, non-oil commodity prices are likely to remain flat in real terms next year, not only because of GNP growth of 2.5% in the industrial countries, but also because the temporary supply disruptions, low inventories, and crop failures that drove prices up this year are not expected to recur. As for petroleum, prices are prone to be volatile. The combination of ample inventories, subdued worldwide demand growth, and current overproduction leaves little room for any oil price increase and could inspire considerable weakness for a time.

General price inflation in the industrial countries, as measured by

consumer prices, should average about the same in 1988 as the 3.2% now likely for 1987. That should be true at least of Japan and Europe, whose inflation concerns this year were a direct consequence of the Louvre accord. In the accord's early phase, unsterilized intervention led to rapid money growth and, as time went by, currency stability deprived Japan and Europe of the anti-inflationary benefits of appreciation and exposed them to increases in the dollar prices of commodities. Inflation fears escalated even in the face of good actual inflation performance. Last winter German forecasts of inflation ran as high as 2% or more for the year; in fact, consumer prices have risen only 1% in the last 12 months. Japanese anxiety has focused on the strengthening of domestic demand throughout 1987, taking little comfort from the miniscule rise in overall consumer prices. The dollar decline and the softening of oil prices that followed the stock market crash have eased inflation worries somewhat in both Japan and Europe. But the worries will again find sustenance if money growth remains high.

Immediately following the stock market crash, it seemed that the sharp slowing of the economy initially feared would hold U.S. inflation at bay. However, concern soon returned as the strength of the pre-crash economy became better appreciated. Besides, signs were few that U.S. consumers subsequently were cutting back. November's commodity price increases, plus the renewed fall of the dollar, compounded inflation fears. The more basic question lies with the future of unit labor costs, now that unemployment has fallen below 6%. Were real GNP growth to accelerate much above its likely 2.7% potential rate, wage behavior could worsen. But, in view of the outlook for slower GNP growth, wage gains

next year may edge no higher than 4%-4.5%, despite further dollar decline. Were growth to dip below 2%, little or no wage acceleration might result. U.S. wage behavior appears to have changed for the better, not only as a result of favorable demographics but also in response to enhanced global competition. Thus wage growth has been remarkably quiescent in both 1986 and 1987 (see Chart 3), undershooting consensus predictions by some 2%. At the same time labor productivity growth has recently strengthened, improving the chances for unit cost restraint.

As for global trade and current account imbalances, attention centers on the U.S. trade deficit. There is a reasonable chance that the key U.S. trade deficit will at long last shrink, falling perhaps \$30 billion in 1988 from the record \$170 billion now in store for 1987; the drop could be greater were international oil prices to slide substantially below \$18 per barrel. The basic projection for U.S. trade balance

improvement rests on the dollar's long-standing decline plus the expectation that U.S. real GNP growth in 1988 will run no higher than in other industrial countries on average. It is worth recalling, however, that a somewhat similar assessment of the dollar and the growth differential was last winter's consensus view for 1987; the consensus proved wrong for 1987 and could do so again, notwithstanding the common view that the stock market crash will do more to rein back demand in the United States than abroad. If the consensus proves right this time, the \$30 billion narrowing of the U.S. trade deficit in 1988 will be accompanied by a roughly \$20 billion narrowing of the current account deficit, the difference being mainly attributable to the interest costs on this year's addition to the U.S. net external debt. At around \$145 billion in 1988, or 3% of U.S. GNP, the current account deficit casts a lengthening shadow over global financial markets.

Financing the U.S. current account

The difficulty in reducing the U.S. trade balance, episodes of heavy foreign exchange intervention, increasing calls for U.S. Treasury debt issuance in foreign currencies, and the latest decline of the dollar all point to the issue of financing the U.S. current account deficit. Until now this has largely been taken for granted. With the prospect of current account deficits of \$100 billion or more seemingly assured for years to come, how can the United States continue to finance them?

Complacency for long has been encouraged by the ready availability of external financing to the

United States during the first half of the 1980s. The ease of financing primarily reflected changing U.S. attitudes to investment abroad, interest and exchange rate developments and expectations, and the thirst for diversified U.S. assets on the part of the major surplus countries of the Far East, some of which are net creditors for the first time and have begun building their portfolios by accumulating dollars. Until 1986, these forces enabled the current account to be financed entirely by private capital flows in what may be stylized as three "waves" of private financing.

Table 6

U.S. balance of payments

billions of dollars, annual rate; minus sign indicates an outflow

	1982	1983	1984	1985	1986	1987 1st half	Q3
Current account	-8.7	-46.3	-107.0	-116.4	-141.4	-155.9	-173.5
Net private capital	16.2	46.7	112.6	124.2	108.3	97.1	171.0
Net direct investment*	2.2	5.4	17.3	5.9	1.4	6.7	11.7
Net securities investment*	19.0	16.3	36.0	59.8	71.4	56.5	30.5
Net bank	-45.4	20.4	22.7	39.7	18.3	22.4	110.5
Other private capital net	4.2	-6.6	9.7	0.9	-6.7	9.5	0.0
Errors and omissions	36.1	11.2	26.8	17.9	23.9	2.0	18.3**
Net official capital	-7.5	-0.4	-5.6	-7.8	33.1	58.8	2.5
U.S. assets	-11.1	-6.2	-8.6	-6.7	-1.6	10.8	1.1
U.S. liabilities	3.6	5.8	3.0	-1.1	34.7	48.0	1.4

*Net direct investment includes reinvested earnings of foreign subsidiaries; to adjust for securities market borrowing by offshore subsidiaries of U.S. corporations, intercompany debt between U.S. parents and their Netherlands Antilles affiliates is shifted from direct investment to securities investment.

**Errors and omissions includes other net private capital.

In the first, net capital inflows through U.S. banks dominated (see Table 6). On the asset side, the banks' disengagement from international lending began to show through in the 1983 balance of payments statistics, including not only the banks' pullback from lending to developing countries but also their reduced activity vis-à-vis other industrial countries. On the liability side, expectations of higher interest rates, beginning early that year and confirmed by rising short-term rates in the summer, attracted foreign inflows into U.S. banks. This phase continued until mid-1984, when the Federal Reserve reversed its policy of tightening and both short-term and long-term interest rates began to fall.

In 1984 the second wave saw securities, particularly Treasury and Eurobonds, take over as the principal conduit for U.S. current account financing, thanks importantly to yield differentials at least initially strongly favoring the dollar. Japanese institutional investors focused on Treasuries. Investors elsewhere became particularly active securities buyers in the second half of the year, following the removal of the

withholding tax on corporate Eurobonds. Eurobonds became much more important in U.S. business finance and in overall international financial flows. Unlike companies in most other countries, U.S. firms had large borrowing requirements. Often well-known and high rated, U.S. corporations made up a large proportion of Euromarket borrowers. Securities inflows, especially via Euromarket borrowing, continued strong through the first half of 1987.

Yet from early 1986 a third wave of financing got under way. Foreigners, especially the Japanese, increasingly diversified their purchases away from Treasuries and Eurobonds.* In the first half of 1987 foreigners' holdings of Treasuries declined, their net purchases of equities surpassed those of bonds, and they stepped up real estate purchases and direct investment (see Tables 7 and 8). Direct investment inflows as measured in the balance of payments grew to an annual rate of over \$30 billion in the first half of 1987, or 65% of the net amount of securities purchased in the same period. Total direct investment will have run much higher, since a large proportion is financed through borrowing, much of it in the United States. For their part, U.S. residents have raised their own direct investment abroad, with earnings reinvestment — in part reflecting exchange gains on foreign cur-

*According to U.S. data, net Japanese purchases of U.S. Treasury securities declined during 1986 and fell further during the first half of 1987. The statistics are at odds with market perceptions and with Japanese balance of payments and securities dealers' statistics. The discrepancy arises in part because increasingly the nationality of an investor or financial intermediary is not synonymous with its country of residence. If the U.S. affiliate of a Japanese securities house or institutional investor purchases U.S. Treasury securities, the market may perceive it as Japanese investment, but no balance of payments flow has occurred because the affiliate is resident in the United States. Only if the affiliate borrows funds from its Japanese parent is there a balance of payments transaction, which is reported as direct investment. Similarly, errors in distinguishing residence from nationality can contribute to discrepancies between U.S. and Japanese statistics attempting to measure the same flows.

Table 7

Selected U.S. private capital flows
billions of dollars, annual rate;
minus sign indicates an outflow

	1984	1985	1986	Q1-Q3 1987
Net foreign purchases of U.S. assets	66.3	66.1	99.8	85.3
Direct investment	25.4	19.0	25.1	34.9
Securities	40.9	67.1	74.7	50.4
U.S. Treasury securities	23.0	20.4	8.3	-8.8
Other bonds*	19.2	42.4	49.4	28.2
Equities	-1.3	4.3	17.0	30.9
Net U.S. purchases of foreign assets	-12.9	-20.6	-27.0	-29.0
Direct investment*	-8.1	-13.1	-23.7	-26.5
Securities	-4.8	-7.5	-3.3	-2.5
Bonds	-3.8	-3.8	-2.6	-0.8
Equities	-0.9	-3.7	-0.7	-1.7

*Adjusted for securities market borrowing by Netherlands Antilles affiliates.

Table 8

U.S. current account financing
percent of current account deficit

	1984	1985	1986	1987 Q1-Q3
Private	105	107	76	75
Net foreign purchases of U.S. assets	62	74	71	53
Of which				
U.S. Treasuries	22	18	6	-5
Other bonds	18	36	35	17
Equities	-1	4	12	19
Net U.S. purchases of foreign assets	-12	-18	-19	-18
Net bank and other private capital	30	35	8	36
Errors and omissions	25	15	17	5
Official	-5	-7	24	25

rency assets — a substantial component, yet have not on balance been major buyers of foreign securities during the deficit period.

The third wave of private net capital inflow has not provided full financing of the U.S. current account deficit. In 1986 official finance covered almost one-quarter of the deficit. The proportion rose above one-third in the first half of 1987, but fell abruptly in the third quarter. The \$68 billion increase during the first half of 1987 in the foreign exchange reserves of a handful of major holders — among them, Taiwan, Germany, and Japan (see Table 9) — and central bank statements that the G-10 countries had undertaken foreign exchange intervention of some \$70 billion from January to May suggested that official financing exceeded the U.S. current account deficit, implying that foreigners were liquidating their U.S. assets, a condition popularly labeled "flight from the dollar."

Admittedly, the enormous buildup of reserves in Japan, and also some portion of the increase in Europe's reserves, have largely reflected intervention to buoy the dollar. However, a rise in official reserves abroad need not betray pressure on the dollar or greater official financing of the U.S. current account. Not all reserve accumulation occurs through intervention; in particular, controls can centralize funds generated by a current account surplus at the monetary authority, as in Taiwan where the official sector has customarily made foreign investment decisions that other major countries leave to the private sector. Nor do reserve increases automatically finance the U.S. deficit. For example, when foreign central banks place reserves in the Euromarket, if the funds ultimately reach the United States, they do so through private bank flows or other capital account trans-

actions, rather than official financing. Even the volume of intervention overstates the extent of central bank dollar support operations. Not all exchange market intervention directly supports the dollar: virtually all Germany's reserve growth at the start of 1987 took place in support of unviable intra-EMS currency relationships prior to their realignment; much of this year's U.K. intervention has served to hold down the pound against the mark; some countries later repurchase reserves they have used in intervention, producing some double-counting.

In sum, official flows have contributed a significant fraction of U.S. current account financing during 1987 but their role is too easily misrepresented. Official flows cannot be characterized as lending of last resort to the United States today in the way that they nearly were in 1978, when Germany, Japan, and Switzerland were the major official reserve holders. All three, and the United States itself, agreed at the time that the dollar's precipitous decline was unwarranted. In 1986, intervention in large part reflected genuine disagreement among the major governments about whether and how much the dollar should decline. In 1987, while much intervention has supported the Louvre accord, it is not clear that a moderately declining dollar would have precluded full private financing at a reasonable price.

By the end of 1987, the United States will have moved into a significant net debtor position estimated at \$425 billion (see Table 10). The estimate can only be rough, thanks to the shortcomings of balance of payments accounting convention and reporting compliance. For example, the enormous overseas direct investments by the United States in the 1950s and 1960s are valued in the official statistics at essentially historic cost, a con-

Table 9

Official reserves

billions of dollars, excluding gold

	Changes in 1987			Levels
	1st half	Q3	Oct	End Oct
Japan	26.8	2.8	5.9*	72.7
France	0.8	-1.5	-1.5e	29.5e
Germany	10.6	1.3	4.7	66.7
Switzerland	-0.4	-0.6	1.0	20.5
United Kingdom	10.3	0.4	7.4*	36.6
Subtotal	48.1	2.4	17.5	226.0
Spain	5.2	5.6	n.a.	25.5**
Taiwan	14.6	5.7	2.0e	68.5e
Total	67.9	13.7	19.5	320.0
Memo items:				
Net official financing of U.S. current account	28.8	0.6	10.0e*	
Estimates of exchange market intervention by G-7	\$70 billion to \$90 billion through September			

*October and November.

**September.

Table 10

U.S. net international investment position

billions of dollars at year-end

	1981	1984	1986
Net international investment position	141.1	3.6	-263.6
U.S. assets abroad	719.8	896.1	1067.9
U.S. official reserve assets	30.1	34.9	48.5
Other U.S. government assets	68.7	84.9	89.4
Private assets	621.1	776.3	929.9
Direct investment	228.3	211.5	259.9
Securities	63.4	89.1	131.1
Other	329.4	475.7	539.0
Foreign assets in the United States	578.7	892.5	1331.5
Foreign official reserve assets	180.4	199.2	240.8
Other foreign assets	398.2	693.3	1090.7
Direct investment	108.7	164.6	209.3
Securities	93.6	185.5	405.5
Other	196.0	343.2	475.8

vention that captures neither current market value nor the bulk of any foreign exchange appreciation of the assets. Thus gross U.S. foreign assets are seriously understated in the official data. At the same time, the over-\$200 billion cumulative inflow into the United States classified as unidentified "errors and omissions" in the last ten years in large measure reflected additional U.S. borrowing. U.S. foreign liabilities are correspondingly understated. Nevertheless, whatever the exact net debt figure, the rapidity with which the United States has fallen from the world's largest net creditor to its largest net debtor raises the question of just how high U.S. indebtedness can go.

Financing the future

Financing the U.S. current account deficits of the future, no matter how smooth hitherto, raises nagging questions about the form, availability, and assurance of voluntary funds, whether private or official. These questions underlie market obsessions to divine the preferences of foreign investors, especially those of the Japanese, and the willingness of governments to provide official financing.

In the immediate period ahead, if confidence and exchange rate expectations allow, private capital inflows conceivably may cover the U.S. deficit financing need once more without heavy official support. Still, doubts arise because global bond markets are moving on from the favorable phase of two cycles — disinflation and declining interest rates. Now too, the global equities markets have been deeply shaken. If neither dollar securities nor equities purchases are promising sources of private financing, official financing via exchange market inter-

vention or U.S. foreign-currency-denominated borrowing may be called in aid. The wisdom of either must be queried, other than for tactical purposes, since experience shows that official financing often has been marshaled in defiance of reality, ultimately compounding adjustment costs.

It is important to comprehend the financial magnitudes potentially entailed in long-term financing of the U.S. external deficit. Suppose that priority is given to stabilizing the dollar and avoiding U.S. recession, while other industrial countries fail to raise their targets for economic growth. Although the U.S. trade deficit then should shrink next year and into 1989, Scenario 1 in Table 11 indicates that it subsequently would widen again to exceed \$200 billion annually by the mid-1990s. Reduction of the current account deficit would be yet shorter-lived, with the imbalance surpassing \$400 billion by 1995 — nearly 6% of GNP, versus under 4% today. Three-fifths of the 1995 deficit would represent interest payments on net U.S. obligations to foreigners, which by then could approach \$2.5 trillion compared with the \$425 billion likely on the official measure for the end of this year.

This will not happen. The very thought of a \$2.5 trillion U.S. net foreign debt taxes the imagination. That sum would approximate today's total U.S. federal government debt, be more than double the gross foreign debt of all LDCs, and be six times Latin America's. Of course, some will say that these numbers need more proper perspective. Thus, \$2.5 trillion would be about one-third of U.S. GNP in 1995, the equivalent of \$1.8 trillion if scaled to the size of today's U.S. economy. Given that, for example, U.S. mortgage credit alone amounted to \$2.5 trillion at the end of 1986, while estimated total U.S. private financial

Table 11

U.S. external financing vulnerability

	U.S. net foreign debt, end-1995		Nominal effective dollar, % change through 1995	Average annual real GNP growth 1988-95, %		U.S. inflation* 1988-95 average, %	6-month LIBOR, average, %	CIF trade balance, 1995 \$ bil.	Net interest payments, 1995 \$ bil.	Current account, 1995 \$ bil.
	\$ bil.	% of GNP		United States	Japan & Europe					
Fixed dollar scenarios										
1. No financing constraint	2510	35	0	2.4	2.7	4.0	9.7	—220	290	—435
2. Financing constraint, requiring no debt accumulation beyond 1995	1020	21	0	0.7	2.7	1.2	8.5	15	80	0
Lower dollar scenarios										
3. Limited financing constraint, stabilizing debt-GNP ratio	1215	16	—22** Y90 DM1.20	2.4 (1.9)***	3.2 (3.5)***	4.5	8.5	—45	105	—75
4. Accelerated cooperative adjustment to zero current account deficit by 1995, with dollar decline front-loaded and faster U.S. and foreign growth	900	13	—17** Y95 DM1.28	2.0 (1.5)***	3.3 (3.6)***	4.0	8.0	—10	65	0

*Manufactures wholesale prices.

**Percent change from the average for the week ending December 11, 1987. Although the nominal dollar declines more in Scenario 3 than in the fourth case, in real terms the exchange rate declines by the same amount (about 14%).

***Domestic demand growth.

and nonfinancial wealth then stood at \$15 trillion, some might view a \$1.8 trillion net foreign debt with near equanimity. Others would acknowledge the gravity of debt burdens but are more worried by LDC, real estate, energy, or financial restructuring exposures than by the portion of U.S. debt owed to foreigners.

Nonetheless, both market and political considerations make it altogether implausible that the United States will actually accumulate a multi-trillion dollar net foreign debt. The implausibility arises on three main grounds. First, the debt pileup would inevitably be viewed in financial circles as compelling evidence of mismanagement. International experience — drawn from Latin America during the past ten years, Britain and Italy in the mid-1970s, France at the end of the 1960s, to name just the leading examples of the postwar period — teaches that the perception of mismanagement destroys investor confidence. Be-

yond some point, the United States would begin to suffer capital flight, with consequences for the dollar and interest rates culminating in deep recession. That would bring the current account deficit and debt accumulation to a swift and brutal end, and much else besides. Second, political leaders are sure to respond to their own, and the popular, concern that net debtor status renders U.S. policies, companies, and real estate "hostage" to foreign influence or control. Although the latter are facts of life in an integrated world, regardless of the size of the net liabilities position, escalating U.S. indebtedness offends traditional notions of U.S. independence and leadership. Third, the U.S. external debt predicament encourages smugness, even arrogance, among creditor nations who would be tempted to assert conditions for ever-increasing support, conditions not guaranteed to be constructive for the U.S. or world economy.

The gravity of the risks attending an unbounded rise in U.S. external debt needs to be factored into the design of a strategy for international adjustment. For the United States, the immediate goal has long been to arrest deterioration of the trade deficit and for it to be seen on a declining path. This goal makes sense from the standpoint of staying current protectionist impulses but does not, of itself, come to grips with the reality that at some unpredictable time the United States is likely to face a binding external financing constraint with a critical time dimension. If the constraint is imposed by market forces, the results could be highly destructive. Rather than so imperil the world economy, it would be preferable that governments of the major industrial countries develop agreed and specific goals for adjustment, with better understanding of the financing implications and those for exchange rates and demand management.

As a hypothetical exercise, but one embodying the general intent of the Louvre accord, suppose that the U.S. adjustment goal would eliminate the current account deficit by 1995; that U.S. trade partners rise to the challenge of relaxing their domestic policies enough to compensate for net export loss; but that the price of their consent is the fixing of the dollar indefinitely at its current level. Scenario 2 in Table 11 shows the U.S. current account goal to be achievable, with net debt peaking out just above \$1 trillion, provided the merchandise trade account strengthens by some \$200 billion. But although the fixed dollar would hold U.S. inflation to German-Japanese levels, the economic cost would be wholly unacceptable. Continued U.S. growth might just about be possible through the 1988 election but real GNP would have to stagnate over the adjustment period

as a whole and be accompanied by enormously high unemployment. Domestic demand would decline 0.5%-1% annually and, with population growth of 2% or so, U.S. living standards would be sorely hit. At the same time, industrial-country real GNP growth would average a mere 1.5% annually, an environment of despair for LDCs.

The failings of Scenario 2 are several. First, like the original Louvre accord, it arbitrarily rules out further dollar depreciation in favor of income compression as the instrument of U.S. adjustment. Second, it assumes no success in persuading Japan and Europe to lift their economic growth objectives above the performance of recent years. Third, the requirement that the U.S. current account must literally be balanced within any early horizon is not propitious for world economic growth. After all, amid U.S. recession, growth elsewhere hardly is apt to flourish unscathed, contrary to the view that the world can only gain by a dose of U.S. austerity.

On an optimistic view, it may not be necessary to eliminate the deficit in the U.S. current account. After all, a balanced current-account amid continuing U.S. growth would steadily reduce net foreign debt as a percentage of U.S. or world GNP. Instead, as in Scenario 3, the U.S. financing goal and constraint might be specified as stabilizing the foreign debt-U.S. GNP ratio around the 15% level by the early 1990s, up from about 10% at present. A more palatable world outlook then becomes feasible provided all major players accept a mixture of cost and benefit. Thus the United States must repress its growth ambitions to a humble 2.5% annually for real GNP, implying domestic demand growth averaging 1.8% — consistent with approximate maintenance of living standards, albeit with un-

employment averaging somewhat higher than today. The dollar has to be allowed to drop, particularly during the next two years and with no precommitment to stabilizing it before the 1990s. For its part, Japan would need to *sustain* domestic demand to assure 4%-5% annual real GNP growth, and Europe some 3%. On this basis, the amended financing constraint would be met, with the current account falling distinctly below \$100 billion annually in the early 1990s; and the vexing U.S. trade deficit would improve steadily, perhaps being reduced \$100 billion by the end of this decade and working below \$50 billion in the mid-1990s.

Scenario 3 offers an attractive vision. Unfortunately, its realism is questionable since it presumes that Japan and Europe will be willing to accept major appreciation of their currencies and take vigorous steps to boost their domestic growth. Moreover, beyond a point the markets may not be tolerant of any increase in U.S. net external debt, which in this scenario would reach well above \$1 trillion in the mid-1990s and continue to rise no matter that it would have stabilized relative to GNP.

It clearly is prudent to aim for a more ambitious reduction of the U.S. financing need, against the possibility that market and political considerations will some day call a halt to U.S. external debt accumulation, quite likely on the low side of \$1 trillion. With less of a debt mountain to service, the degree of merchandise trade adjustment required to rebalance the current account is reduced and the associated real economic costs of transition at home and abroad are alleviated.

Scenario 4 summarizes the implications of facing up to this more stringent financing constraint. Once again this specifies a balanced U.S. current account by 1995 but, unlike

Scenario 2, it assumes that Japan and Europe succeed in boosting growth in the years ahead; and that they acquiesce in a sizable fall in the dollar, concentrated in the next two years and roughly maintaining its real effective value thereafter. The indicated cumulative depreciation through 1995 is broadly consistent with the drop already discounted in prevailing long-term government bond yields. Despite the dollar's fall, U.S. inflation does not accelerate above 4%, since it is assumed that U.S. domestic demand is held firmly in check at some cost to living standards and, potentially, considerable cost to employment. Plainly, this austerity regimen would not be popular with U.S. policymakers, let alone the electorate. It needs to be recognized, however, that no alternative exists combining realism and gratification. Debtor adjustment is never painless.

Assessment

Even if U.S. net external debt can be capped below \$1 trillion, at least \$500 billion in cumulative current account deficit financing will have to be assembled over the next several years. Some may doubt that the markets are up to the job. Yet, once the right interest and exchange rate expectations are in place, the capacity of markets to channel funds in new ways and on unprecedented scale should not be underestimated. Provided the dollar is allowed to find its own level quickly, unimpeded by official statements or actions lacking market credibility and creating a one-way bet on imminent dollar depreciation, foreign investors could soon rediscover a strong appetite for U.S. assets without demanding interest rates so high as would cripple the U.S. economy.

The appetite will likely be met in part through purchases of U.S. se-

curities, such as have been prominent in recent years, and also by stepped-up financing channeled through the banking system, as proved the case during the third quarter of this year. Foreign banks are likely to enlarge their role in financing U.S. firms, whether through U.S. branches or directly; U.S. banks can fill the same function, drawing funds from their foreign branches. Partly for accounting reasons and perhaps also recalling unhappy experience with Swiss franc issues in the 1970s, U.S. firms traditionally have raised funds overwhelmingly in dollar-denominated or — to a much lesser extent — hedged foreign-currency instruments. Still, traditional funding preferences should not be immutable. A realistically valued dollar would be conducive to the emergence of market terms allowing U.S. borrowers sufficient interest savings to compensate for the currency risk that foreign investors may be hesitant to carry.

One feature of the recent financing pattern that seems destined to grow in significance — and the more so as the dollar approaches or even overshoots a sustainable level — is the upswing in foreign direct investment in the United States. This has occurred despite the exchange risk to the investors concerned, some of whom are motivated in part by the much publicized risks of U.S. protectionism. The inflow will come not only from Japan but also from Korea and Europe. Given that the stock market valuation of all U.S. companies is on the order of \$2 trillion, it is unlikely that direct investment will amount cumulatively to an unduly large fraction of U.S. business generally. However, it is quite possible that foreign investment will seek to concentrate in selected industries, potentially stirring domestic political repercussions (recall Europe's anxieties twenty years ago

over U.S. direct investment activity then). Conversely, U.S. firms may undo in some degree their direct investment abroad, particularly in areas where local markets prove disappointing and production costs unattractive compared with the United States or where asset disposals fetch attractive prices in dollar terms. As for equity portfolio investment, to the extent that a more competitive dollar boosts the prospects of U.S. firms, foreign investors should find U.S. equities relatively appealing, no matter that the global crash has tarnished the luster of most equity holdings for the time being.

The resources of the global financial markets ensure that private capital inflows have the potential to cover the prospective U.S. external financing need in the years ahead. Realizing their potential, however, requires that the right incentives be present amid confidence that the United States recognizes the dangers of neglecting its growing indebtedness to the world and is playing its part to avert the attendant risks.

The road ahead looms rocky today because neither the incentives nor the confidence are firmly in place. The time still is not ripe for a new attempt at fixing the dollar, while the markets correctly sense that no credible international adjustment package will be forthcoming anytime soon: the required political will still is lacking, particularly in the United States as the 1988 elections draw close; Europe's growth ambitions continue truncated; Japan is in a phase of self-congratulation; and Korea and Taiwan have barely begun to rethink their export-driven growth strategies.

The foregoing analysis concludes that the dollar still must go lower, and preferably quickly, to foster trade adjustment, facilitate financ-

ing, and induce both the deficit and surplus countries to correct their domestic growth policies. It would be premature to accede now to suggestions that the U.S. government issue special foreign-currency denominated bonds and engage in massive intervention to support the dollar.* When policy fundamentals are out of joint, such devices serve only to delay correction. Besides, they are soon overwhelmed by market forces — a truth of which the

traumatic demise of last February's Louvre accord has provided ample demonstration. With that trauma still fresh in mind, the G-7's pre-Christmas statement will prove ill-judged if interpreted as a fresh commitment to exchange rate stabilization. That can only be viable once supporting fundamental policy corrections are firmly in place and adequate to the adjustment task. They are not yet so today.

Statistical appendix

For key to data in tables
see April 1987 issue.

Effective exchange rates —
industrial countries, 16

Real effective exchange rates —
developing countries, 17

International banking market size, 17

International bond issues and
bank credits, 18

Eurocurrency deposit rates, 19

International bond yields, 19

Central bank discount rates, 20

Day-to-day money rates, 20

Treasury bill rates, 21

Representative money market
rates, 21

Commercial bank deposit rates, 22

Domestic government bond yields, 22

Commercial bank lending rates
to prime borrowers, 23

Domestic corporate bond yields, 23

Information herein is from sources
considered to be reliable but is furnished
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*Such foreign-currency bonds, dubbed "Reagan" bonds, would resemble the "Carter" bonds targeted to foreign investors in 1978. Some foreign opinion holds that incurring foreign-currency liabilities would bring the United States more properly in line with other debtor nations, forcing it to bear more fully the cost of unwarranted dollar depreciation, rather than inflict that cost on foreign creditors, and thereby strengthen U.S. self-interest in dollar stabilization. On much the same grounds, it is argued that the Federal Reserve should participate more equally with foreign central banks in exchange market intervention to support the dollar. This would lessen the budgetary costs that foreign governments sustain when their central banks experience home-currency losses on reserve holdings. Of course, the major central banks well understand that accounting gains and losses on reserves accrued through exchange rate management do not betoken success or failure in the ordinary portfolio management sense. Still, in practice, the potential for such losses, together with worry over the effects of intervention on domestic money supplies, puts something of a cap on cumulative intervention volume.

Effective exchange rates – industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1982	109.8	99.4	98.6	100.0	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.0	106.3	95.7	101.7	92.8
1983	114.2	100.8	107.8	92.0	87.3	107.5	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.5	82.2
1984	122.3	97.3	112.9	94.2	84.4	107.3	86.7	88.1	103.6	88.9	103.9	77.4	110.5	93.9	97.8	84.3
1985	127.0	92.8	115.9	76.3	85.5	107.8	82.1	88.2	104.2	89.6	104.0	75.6	109.5	95.1	95.6	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.2	81.6
1987																
January	98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February	96.9	89.7	156.4	57.2	87.9	122.7	83.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
March	96.0	90.5	157.9	58.3	87.3	121.7	83.3	78.1	110.3	95.7	114.1	71.1	121.4	103.7	84.8	80.6
April	94.0	90.2	165.9	59.1	87.2	121.4	82.9	78.8	110.0	95.5	114.1	71.1	123.0	103.2	85.3	80.6
May	93.5	88.4	168.2	58.7	87.1	121.7	82.1	79.8	110.1	95.6	114.3	71.4	123.8	103.6	85.8	80.4
June	94.8	88.8	164.7	59.9	87.1	121.6	81.8	79.1	110.2	95.6	114.3	71.9	122.7	103.4	86.5	80.5
July	96.0	90.0	159.1	60.0	87.2	121.4	81.6	79.2	110.2	95.4	114.2	72.5	122.2	102.4	87.2	80.4
August	95.7	90.0	162.7	59.8	86.8	121.3	81.5	78.9	110.1	95.2	114.1	73.6	122.6	101.3	87.3	80.2
September	93.9	90.3	165.4	60.5	86.9	121.5	81.7	79.6	110.1	95.3	114.4	74.6	122.7	100.6	87.4	79.9
October	93.4	90.7	165.1	58.9	86.7	121.3	81.7	80.0	115.7	95.1	114.5	75.9	122.3	101.3	87.0	79.6
November	90.0	89.3	171.2	54.3	86.7	123.6	81.2	81.5	110.9	95.6	115.9	75.6	125.4	102.5	85.2	79.2
October 30	92.1	89.8	167.9	55.9	86.8	122.5	81.6	80.5	110.4	95.3	115.0	76.5	124.0	101.9	86.2	79.4
November 6	90.6	89.1	170.6	54.1	86.6	123.5	81.0	81.3	110.8	95.6	115.7	75.9	125.0	102.3	85.8	79.3
13	89.9	89.1	171.2	54.3	86.7	123.5	81.3	81.3	110.9	95.6	116.7	75.6	125.5	102.5	85.5	79.1
20	90.1	89.5	171.0	55.1	86.8	123.4	81.4	81.4	110.8	95.5	115.6	75.4	125.5	102.5	85.4	79.2
27	89.3	89.5	171.4	54.6	86.9	123.1	80.9	81.7	110.8	95.2	115.4	75.0	125.2	102.5	84.3	79.0
December 4	88.3	89.3	173.2	55.2	86.7	123.8	81.3	82.2	110.9	95.7	115.9	75.5	126.2	102.8	83.9	79.0
11	88.4	89.6	175.3	55.2	86.9	123.6	81.2	82.1	110.8	95.7	115.8	75.3	126.3	102.8	83.8	79.0
Real against 15 other industrial-country currencies																
1981	100.8	99.5	104.7	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	98.9	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.8	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.8
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.0	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.4	96.4	96.6	89.5	100.5	96.7	100.2	92.9	103.3	85.3	96.6	92.5	98.0	101.2	99.5	96.9
1986	101.5	93.4	119.3	78.9	103.9	103.4	102.6	87.4	106.6	84.6	101.4	94.0	105.6	107.5	97.1	96.0
1987																
June	91.2	95.6	124.8	82.7	105.4	106.0	103.1	87.6	110.1	84.3	104.7	94.4	109.3	112.5	101.1	95.6
July	92.6	97.0	120.7	83.3	105.8	105.8	102.8	87.8	111.4	84.1	102.8	95.2	108.6	111.2	102.1	95.6
August	92.1	97.3	123.6	84.2	105.2	105.7	103.0	87.4	111.6	83.9	102.9	96.5	108.6	110.3	101.6	95.5
September	90.4	97.4	125.7	85.8	105.2	105.9	103.0	88.2	110.3	83.7	103.8	98.2	108.3	110.0	103.5	95.3
October	90.5	97.5	124.9	84.2	104.6	104.9	103.2	88.7	116.3	83.2	105.2	99.8	108.7	110.5	103.9	94.7
November	87.0	96.2	129.1	78.5	105.4	106.6	102.6	90.3	111.6	83.7	106.6	99.4	111.1	111.7	102.5	94.5
Real against 18 other industrial-country and 22 LDC currencies																
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	101.9	98.9	100.9	96.6	98.9	98.1	98.7	101.3	101.5
1982	109.7	101.7	94.0	105.2	96.9	99.4	98.1	98.5	101.1	91.5	99.5	98.9	102.6	97.7	102.9	95.4
1983	114.9	104.6	100.4	102.0	94.4	100.6	100.8	93.1	102.1	88.2	99.5	89.2	105.1	100.3	101.9	91.0
1984	120.8	102.7	102.4	106.7	96.4	98.8	101.0	89.7	102.6	85.0	95.9	91.3	99.8	99.0	100.5	95.8
1985	123.9	99.2	101.6	90.1	100.0	95.8	99.8	92.4	102.9	84.5	94.8	93.2	97.8	101.2	99.8	96.9
1986	107.1	94.5	124.0	80.8	104.5	104.5	104.1	88.2	107.4	85.1	101.4	96.6	107.5	108.0	97.9	96.8
1987																
June	97.3	95.8	128.7	84.3	106.6	108.2	105.6	89.2	111.5	85.5	105.6	97.8	112.1	113.4	102.1	96.8
July	98.4	97.3	124.6	84.6	106.9	108.0	105.2	89.4	112.8	85.2	103.6	98.6	111.4	112.1	103.1	96.8
August	98.0	97.6	127.6	85.5	106.2	107.8	105.3	88.9	113.0	85.0	103.6	99.8	111.3	111.1	102.6	96.6
September	96.2	97.5	129.5	86.9	106.2	108.0	105.3	89.8	111.6	84.7	104.6	101.6	111.0	110.8	104.4	96.5
October	96.1	97.6	128.5	85.1	105.7	107.1	105.6	90.3	117.8	84.3	106.0	103.2	111.4	111.5	104.9	96.0
November	92.8	95.9	132.2	79.8	106.7	109.2	105.3	92.2	113.2	85.1	107.8	103.1	114.1	112.7	103.5	95.9

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.7	103.3	108.3	100.6	114.6	103.4	99.7	98.7	99.8	100.3	99.4	101.3	102.0	101.8	99.2	104.6
1982	77.0	113.0	97.3	105.9	82.7	104.6	110.2	101.4	111.7	101.9	105.6	106.7	100.8	96.6	108.7	95.9
1983	71.6	86.0	89.3	104.9	79.0	98.4	117.3	95.0	96.2	97.6	113.9	96.1	101.6	94.6	120.8	93.4
1984	80.2	85.7	90.1	99.6	91.9	105.8	85.9	99.5	96.0	96.5	119.6	107.9	102.5	97.1	119.5	91.1
1985	71.2	85.0	79.7	85.6	90.6	96.3	93.0	103.5	94.7	89.2	116.3	114.6	95.7	94.6	106.6	91.4
1986	61.0	74.5	68.7	67.7	65.1	93.8	85.7	93.6	71.6	75.8	94.6	90.2	80.3	88.7	100.9	71.0
1987																
January	56.3	75.9	65.6	65.5	60.8	107.7	49.9	89.3	56.1	74.1	89.6	87.6	76.5	88.4	94.6	63.7
February	55.5	71.7	66.1	65.8	61.2	110.9	53.6	88.3	56.0	73.7	89.9	85.0	74.8	88.7	93.4	63.3
March	53.3	71.3	66.7	65.0	62.1	112.8	56.9	89.3	55.2	73.8	90.1	84.5	74.2	89.2	94.6	64.1
April	53.1	75.4	65.9	63.6	62.1	115.4	57.6	88.8	53.6	73.5	90.7	83.8	73.1	89.6	95.1	63.4
May	53.1	75.7	66.0	62.7	63.1	118.1	59.9	89.8	53.8	74.1	90.2	84.0	73.3	92.0	95.0	64.1
June	53.7	75.4	65.6	62.9	65.1	121.7	61.9	90.8	54.7	76.1	90.0	86.4	73.8	94.8	96.9	63.1
July	53.5	73.1	65.8	64.1	68.4	131.4	64.0	90.1	56.0	77.7	91.6	88.8	74.3	95.8	98.8	62.7
August	54.7	71.3	66.3	63.2	69.8	140.7	63.2	89.6	55.8	77.3	91.3	88.6	74.6	96.9	99.8	63.0
September	53.8	71.2	65.5	62.9	71.7	147.5	63.2	89.8	54.8	76.7	90.1	86.9	73.9	95.7	100.0	61.3
October	54.1	73.4	65.3	62.5	73.4	147.9	63.7	90.1	55.1	76.0	88.8	87.8	73.3	94.9	100.5	60.4
November	54.6	70.1	62.5	61.6	73.1	128.3	62.6	89.3	55.0	73.5	87.7	85.6	73.5	92.3	98.5	57.5

International banking market size

at end of period, billions of dollars

	1982	1983	1984	1985	1986			1987	
					Jun	Sep	Dec	Mar	Jun
Gross claims									
Eurocurrencies, on residents and nonresidents	2 146	2 253	2 359	2 833	3 040	3 347	3 560	3 811	3 942
On nonbanks	634	665	694	822	875	914	938	995	1 175
On banks	1 512	1 588	1 665	2 011	2 165	2 433	2 622	2 817	2 767
In dollars	1 694	1 797	1 894	2 101	2 166	2 381	2 534	2 602	2 753
In other currencies	452	456	465	732	874	966	1 025	1 209	1 189
Domestic currencies, on nonresidents	398	402	402	506	578	633	672	721	757
On nonbanks	132	140	142	187	201	211	209	229	236
On banks	266	262	260	319	377	422	463	492	521
In dollars	211	221	215	215	210	219	227	206	215
In other currencies	187	181	187	291	368	414	445	515	542
Total	2 544	2 655	2 761	3 339	3 618	3 980	4 232	4 532	4 699
On nonbanks	766	805	836	1 009	1 076	1 125	1 147	1 224	1 411
On banks	1 778	1 850	1 925	2 330	2 542	2 855	3 085	3 309	3 288
In dollars	1 905	2 018	2 109	2 316	2 376	2 600	2 761	2 808	2 968
In other currencies	639	637	652	1 023	1 242	1 380	1 470	1 724	1 731
Gross liabilities									
Eurocurrencies, to residents and nonresidents	2 168	2 278	2 386	2 846	3 059	3 384	3 579	3 851	3 999
To nonbanks	432	479	497	585	632	660	685	740	768
To official monetary institutions	91	88	96	112	109	110	109	125	139
To other banks	1 645	1 711	1 793	2 149	2 318	2 614	2 786	2 986	3 085
In dollars	1 741	1 846	1 950	2 147	2 204	2 425	2 553	2 648	2 785
In other currencies	427	432	436	699	855	959	1 026	1 203	1 214
Domestic currencies, to nonresidents	250	260	280	377	418	464	494	556	580
To nonbanks	70	73	80	114	121	121	116	134	144
To banks	180	187	200	263	297	343	377	422	436
In dollars	116	135	140	169	171	191	192	192	197
In other currencies	134	125	134	208	247	273	302	364	383
Total	2 418	2 538	2 666	3 223	3 477	3 848	4 073	4 407	4 579
To nonbanks	502	552	577	699	753	781	801	874	912
To banks and official institutions	1 916	1 986	2 089	2 524	2 724	3 067	3 272	3 533	3 660
In dollars	1 857	1 981	2 096	2 316	2 375	2 616	2 745	2 840	2 982
In other currencies	561	557	570	907	1 102	1 232	1 328	1 567	1 597
Net market size	1 285	1 382	1 430	1 676	1 800	1 912	2 179	2 083	2 170

International bond issues and bank credits

millions of dollars

	1984	1985	1986	1987			Jan-Oct	
				Aug	Sep	Oct	1987	1986
By country of borrower								
Industrial countries	177 077	226 711	270 231	15 182	19 018	10 633	188 408	226 717
Australia	5 816	14 407	20 106	305	1 261	288	10 074	17 238
Austria	2 254	2 435	3 581	418	204	396	3 509	3 281
Belgium	1 847	3 269	4 952	626	217	8	3 730	4 767
Canada	13 124	17 184	21 633	356	542	772	8 236	14 937
Denmark	4 825	3 589	9 633	78	157	53	4 179	6 844
Finland	1 713	1 846	3 445	244	104	256	2 832	2 763
France	11 298	18 773	19 701	438	618	606	10 292	16 148
Germany	2 165	3 452	11 927	1 183	850	195	10 095	10 191
Greece	1 551	1 567	1 317	158	184	—	1 018	1 155
Ireland	1 377	1 881	4 179	80	420	185	1 838	3 849
Italy	6 933	11 033	12 962	200	2 495	293	8 264	11 550
Japan	17 526	21 269	35 506	5 262	4 657	3 459	41 801	28 995
Netherlands	1 973	2 299	3 579	—	378	104	4 322	2 999
New Zealand	3 208	2 707	8 078	308	430	277	4 086	6 123
Norway	1 324	3 905	6 644	499	1 098	38	5 486	5 382
Portugal	1 796	2 382	2 433	—	25	102	2 053	2 377
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	125	129	—	1 249	6 085
Sweden	11 256	9 890	8 020	137	522	147	4 865	7 532
United Kingdom	8 899	25 424	24 295	959	1 328	1 190	21 723	22 325
United States	65 054	69 193	56 774	3 456	1 702	1 870	33 218	48 702
Other*	6 785	5 447	4 448	347	1 699	394	5 536	3 472
Developing countries	39 725	32 139	24 317	2 613	950	718	23 426	20 212
Latin American countries	17 464	8 115	3 192	1 950	—	—	10 571	2 747
Argentina	4 212	3 700	17	1 950	—	—	1 950	17
Brazil	6 649	—	219	—	—	—	—	50
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	—	—	—	50	89
Mexico	3 918	109	313	—	—	—	7 700	313
Venezuela	—	48	—	—	—	—	30	—
Other**	1 312	2 121	2 554	—	—	—	841	2 277
Asian countries	15 893	18 410	15 291	648	661	481	10 175	12 472
India	945	818	1 721	25	55	114	1 628	1 051
Indonesia	1 924	451	1 358	35	—	—	895	1 008
Korea	6 201	5 898	3 134	242	158	—	2 271	2 846
Malaysia	2 605	2 219	1 328	—	—	—	428	1 328
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	38	115	—	388	1 044
Other	2 072	6 602	6 350	308	333	366	4 565	5 195
Middle Eastern and African countries	6 368	5 613	5 834	15	289	237	2 680	4 993
Algeria	821	1 450	1 344	—	—	49	319	996
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	—	289	118	1 830	2 277
Other	3 821	2 960	1 853	15	—	70	531	1 720
Eastern European countries	3 244	5 236	4 091	—	322	80	2 811	3 791
Hungary	1 386	1 577	1 315	—	282	—	1 397	1 315
Soviet Union	1 051	1 489	1 821	—	40	80	814	1 521
Other***	807	2 169	955	—	—	—	600	955
International organizations****	13 287	20 635	18 916	1 026	2 116	1 026	16 306	15 474
By type of instrument and currency								
International bond issues	107 411	167 756	226 393	13 541	13 478	9 539	157 313	194 316
Eurobonds	79 458	136 731	187 952	10 090	9 577	6 468	127 781	163 250
U.S. dollar	63 593	97 782	118 220	7 052	5 385	3 250	55 878	102 796
German mark	4 604	9 491	16 870	520	830	693	12 739	15 570
British pound	3 997	5 766	10 510	648	697	844	12 855	10 164
Japanese yen	1 212	6 539	18 673	185	369	507	18 689	15 543
European composite units	3 032	7 038	6 965	389	331	115	5 481	5 508
Other	3 020	10 114	16 713	1 296	1 895	1 060	21 158	13 669
Foreign bonds	27 953	31 025	38 441	3 451	3 902	3 071	29 532	31 067
U.S. dollar	5 487	4 655	6 064	50	1 011	800	3 911	3 764
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	321
Swiss franc	12 626	14 954	23 401	2 707	2 050	1 966	20 182	19 680
Japanese yen	4 628	6 379	4 756	297	282	49	2 420	4 072
Other	1 677	2 339	3 898	397	558	256	3 018	3 229
International bank credits	125 922	116 764	91 164	5 279	8 930	2 917	73 638	71 878
Eurocurrency credits	112 605	110 317	82 755	4 337	7 860	2 579	65 427	64 892
Foreign credits	13 317	6 647	8 409	942	1 070	338	8 211	6 986
Total	233 333	284 720	317 556	18 820	22 408	12 456	230 951	266 194

*Includes multinational organizations.

**Includes unallocated.

***Includes COMECON institutions.

****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1984	1985	1986	1987						
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov
Eurodollar										
overnight	8.63	12.25	22.00	6.69	6.44	6.62	6.81	8.25	6.75	6.62
one month	8.38	8.00	6.50	7.12	6.94	6.75	7.12	7.75	7.06	8.25
three months	8.63	7.88	6.25	7.25	7.06	7.00	7.19	8.37	7.62	7.94
six months	9.13	7.88	6.12	7.44	7.25	7.25	7.44	8.50	7.69	7.94
twelve months	9.81	7.94	6.12	7.94	7.62	7.69	7.94	9.00	8.00	8.19
Euro-Canadian dollar										
one month	9.89	9.00	8.00	7.87	8.06	8.94	9.12	9.19	7.69	8.56
three months	10.81	9.00	8.12	8.12	8.19	9.12	9.25	9.69	8.19	9.00
six months	10.06	9.00	8.19	8.44	8.37	9.56	9.62	10.19	8.50	9.12
twelve months	10.44	9.00	8.31	8.87	8.69	9.87	10.00	10.69	8.87	9.44
Euro-French franc										
one month	10.69	12.50	10.12	8.00	8.06	7.81	7.81	7.81	9.30	9.37
three months	10.69	13.00	10.37	8.19	8.37	8.12	8.19	8.31	9.00	9.37
six months	11.00	13.13	9.75	8.37	8.56	8.56	8.81	8.69	9.00	9.37
twelve months	11.38	12.25	8.75	8.62	9.00	9.12	9.31	9.19	9.00	9.37
Euromark										
one month	5.50	4.75	5.12	3.75	3.62	3.87	4.00	4.12	3.69	3.94
three months	5.50	4.75	4.87	3.75	3.81	3.94	4.06	4.56	4.12	3.94
six months	5.56	4.75	4.81	3.75	3.81	4.12	4.31	4.75	4.25	4.06
twelve months	5.56	4.81	4.81	3.87	3.87	4.00	4.44	4.81	4.44	4.12
Euro-Dutch guilder										
one month	5.69	5.75	6.31	5.06	5.19	5.25	5.19	5.25	5.12	4.81
three months	5.75	5.75	6.00	5.06	5.19	5.31	5.31	5.56	5.25	4.94
six months	5.81	5.81	5.87	5.12	5.19	5.37	5.37	5.62	5.37	5.00
twelve months	5.94	5.88	5.81	5.12	5.19	5.44	5.50	5.75	5.44	5.12
Euro-Swiss franc										
one month	4.44	3.88	3.94	4.25	3.69	3.62	3.94	3.69	2.87	4.94
three months	4.56	4.00	3.94	3.87	3.81	3.81	3.75	4.37	3.87	4.06
six months	4.63	4.00	3.87	3.87	3.81	3.94	4.00	4.37	3.87	4.06
twelve months	4.69	4.06	3.87	3.87	3.87	4.00	4.06	4.37	3.87	4.06
Eurosterling										
one month	9.50	11.69	11.12	8.87	9.12	9.00	10.00	10.19	9.37	9.00
three months	9.88	11.81	11.12	8.81	9.19	9.44	10.50	10.37	9.44	8.94
six months	10.00	11.81	11.06	8.81	9.19	9.69	10.75	10.50	9.44	9.00
twelve months	10.19	11.69	11.06	9.06	9.31	10.06	11.00	10.69	9.50	9.12
Euroyen										
one month	6.19	7.13	4.56	4.00	3.81	3.62	4.00	4.37	4.37	4.75
three months	6.19	6.56	4.50	3.87	4.00	4.06	4.06	5.00	4.50	4.44
six months	6.13	6.50	4.37	3.87	4.00	4.12	4.19	5.19	4.50	4.37
twelve months	6.13	6.38	4.31	3.94	4.06	4.25	4.31	5.25	4.62	4.44
European currency unit										
one month	9.25	9.63	8.56	8.69	6.56	6.62	6.75	6.87	7.19	6.94
three months	9.38	9.63	8.44	8.67	6.75	6.19	7.00	7.37	7.44	7.00
six months	9.50	9.63	8.06	7.00	6.94	6.94	7.25	7.56	7.44	6.94
twelve months	9.63	9.63	7.31	7.12	7.12	7.12	7.37	7.68	7.62	7.06

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1985	1986	1987							
	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States companies										
Eurodollar	9.68	8.67	8.78	9.53	9.78	10.11	9.82	9.99	10.95	10.41
Euromark	6.73	6.62	6.56	6.59	6.57	6.65	7.04	6.82	6.87	7.04
Swiss franc	5.49	5.70	5.68	5.55	5.52	5.50	5.57	5.43	5.50	5.83
European governments										
Eurodollar	10.52	9.91	10.06	11.00	11.24	11.14	11.22	11.41	11.61	11.63
Euromark	7.03	6.77	6.50	6.33	6.35	6.36	6.55	6.65	6.76	6.61
Swiss franc	4.91	4.51	4.37	4.27	4.34	4.33	4.33	4.38	4.39	4.54
European currency unit	10.23	10.20	10.26	13.07	10.32	10.51	10.40	10.43	10.46	11.10

Central bank discount rates

at or near end of month

	1984	1985	1986	1987					Current	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec 11 1987	effective since
United States	8.00	7.50	5.50	5.50	5.50	6.00	6.00	6.00	6.00	Sep 24, 87
Canada	10.08	9.49	8.47	9.22	9.24	9.57	8.09	8.56	8.70	Dec 3, 87
Austria	4.50	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.00	Dec 3, 87
Belgium	11.00	9.75	8.00	7.25	7.25	7.25	7.25	7.25	7.00	Dec 4, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.50	4.00	3.50	3.00	3.00	3.00	3.00	3.00	2.50	Dec 3, 87
Ireland	14.00	10.25	13.25	10.25	10.25	9.75	9.75	9.75	9.75	Sep, 87
Italy	16.50	15.00	12.00	11.50	12.00	12.00	12.00	12.00	12.00	Aug 28, 87
Netherlands	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.00	3.75	Dec 4, 87
Portugal	25.00	19.00	16.00	15.00	15.00	15.00	14.50	14.50	14.50	Oct, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	3.50	3.50	3.50	3.50	3.00	2.50	Dec 4, 87
United Kingdom	9.38	11.31	10.81	8.87	9.87	9.87	9.37	8.87	8.38	Dec 3, 87
Japan	5.00	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	13.50	19.80	24.60	19.20	18.55	19.20	21.90	21.90	21.90	Oct, 87
South Africa	21.75	13.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Dec 10, 86
Argentina*	18.19	5.00	11.19	12.80	15.20	15.70	17.00	17.00	17.00	Oct, 87
Korea	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	12.11	11.50	9.64	9.01	9.02	9.10	9.13	9.13	9.13	Oct, 87
Singapore	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Venezuela	11.00	12.94	12.79	12.92	12.63	10.00	10.00	10.00	10.00	Sep, 87

*Percent per month.

Day-to-day money rates

monthly averages

	1984	1985	1986	1987							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	8.36	8.27	6.71	6.35	6.85	6.72	6.58	6.82	7.21	7.32	6.67
Canada	10.50	9.23	8.28	7.10	7.41	8.35	8.53	8.72	8.80	8.41	8.16
Austria	7.63	7.25	7.62	4.25	3.80	3.95	4.10	4.10	4.12	4.60	4.20
Belgium	9.12	6.60	5.09	5.65	5.41	5.42	5.62	4.82	5.24	7.07	n.a.
Finland	15.07	11.96	11.97	11.14	11.00	11.00	11.00	11.00	11.00	11.00	11.00
France	10.95	9.02	7.80	7.91	8.02	8.01	7.46	7.41	7.36	7.69	n.a.
Germany	5.62	4.64	5.00	3.75	3.69	3.61	3.73	3.78	3.71	3.74	3.66
Ireland	14.50	9.62	13.00	13.25	12.00	11.00	9.00	8.25	8.75	6.50	8.50
Italy	17.25	14.75	11.42	10.56	10.25	10.78	10.95	11.09	11.70	n.a.	n.a.
Netherlands	5.60	5.75	6.19	5.19	5.20	5.19	5.19	4.84	4.75	5.19	4.44
Norway	12.50	12.50	14.00	14.00	14.00	14.00	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	12.18	9.92	11.76	17.32	20.18	18.12	18.09	17.68	17.45	16.22	14.60
Sweden	11.88	11.83	8.89	8.70	8.71	8.22	8.61	8.50	8.51	10.00	8.75
Switzerland	1.50	2.00	1.12	1.75	1.37	2.25	2.00	1.50	1.37	1.25	1.50
United Kingdom	6.31	9.72	9.19	9.61	8.78	9.16	8.78	9.12	9.72	9.68	9.13
Australia	10.98	18.37	15.40	14.71	13.45	12.79	12.08	11.90	11.58	n.a.	n.a.
Japan	6.41	8.02	4.18	3.52	3.16	3.16	3.17	3.20	3.25	3.39	3.37
South Africa	21.13	12.50	8.50	8.31	8.37	8.00	8.56	n.a.	8.45	n.a.	n.a.
Argentina*	17.75	4.50	7.00	5.50	6.00	8.00	9.00	11.17	12.50	9.00	9.80
Brazil	272.02	352.23	83.05	853.00	n.a.	n.a.	n.a.	153.78	150.10	150.10	329.33
Hong Kong	6.80	6.10	3.90	4.11	4.20	6.45	5.33	5.54	3.67	4.92	1.90
Korea	10.00	8.80	9.00	8.40	8.50	8.90	8.90	10.00	9.50	10.00	n.a.
Philippines	15.22	15.03	9.92	13.29	11.26	8.13	9.17	8.46	16.50	12.94	n.a.
Singapore	6.01	4.53	3.51	3.31	4.39	2.57	3.33	2.91	2.52	3.55	n.a.
Taiwan	8.07	4.50	3.00	3.50	3.50	3.50	5.50	n.a.	n.a.	n.a.	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	7.99	7.25	5.73	5.61	5.82	5.90	6.11	6.41	6.82	5.41	5.50
Canada	9.84	9.24	8.22	8.08	8.19	8.29	8.97	8.99	9.32	7.84	8.31
Belgium	10.90	9.89	7.50	7.35	7.15	6.84	6.74	6.74	6.74	n.a.	n.a.
Ireland	15.10	11.15	13.60	11.29	10.86	10.46	9.56	9.93	8.93	8.80	9.10
Italy	14.69	13.10	10.00	9.60	9.60	9.60	10.53	10.92	n.a.	n.a.	n.a.
Netherlands	5.88	5.69	6.37	5.31	5.31	4.75	5.25	5.62	5.62	5.50	5.25
Spain	12.27	9.52	8.37	9.61	10.40	9.59	8.61	7.10	6.73	8.23	6.78
Sweden	11.83	12.49	9.20	9.25	9.16	8.60	9.11	9.25	n.a.	9.49	9.20
United Kingdom	9.33	11.49	10.79	9.39	8.68	8.96	9.14	10.12	10.02	9.07	8.67
Australia	12.27	19.40	14.91	14.00	13.01	12.23	12.04	11.91	11.09	10.47	10.15
Japan	4.91	4.91	2.89	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	13.50	17.62	19.69	25.29	19.48	18.49	n.t.	19.38	n.t.	n.a.	n.a.
South Africa	21.94	12.99	8.84	8.60	8.96	8.64	8.74	8.70	8.72	8.68	8.64
Brazil	273.03	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	48.67	72.98	104.03	99.01	98.60	98.40	96.86	95.95	95.47	95.76	n.a.
Philippines	47.14	16.45	9.55	11.80	11.65	11.20	10.91	11.67	12.60	12.97	13.18
Singapore	2.91	2.94	2.10	2.12	2.61	2.63	2.97	3.01	3.26	3.57	n.a.

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	8.34	8.01	8.04	6.98	7.12	7.10	6.98	7.10	7.94	7.58	7.80
Canada	10.00	9.40	8.35	8.15	8.30	8.45	9.20	9.15	9.25	8.50	8.70
Belgium	10.85	9.89	7.60	7.40	7.30	7.00	6.84	6.79	6.79	n.a.	7.15
France	10.69	9.12	8.37	8.00	8.12	8.25	7.87	7.81	7.87	8.25	8.62
Germany	5.75	4.80	4.85	3.80	3.65	3.65	3.65	3.85	4.55	4.10	3.80
Ireland	15.13	12.00	14.06	10.87	11.19	10.50	9.87	9.94	9.94	9.25	9.19
Italy	16.88	15.13	11.37	10.00	10.50	11.00	11.12	12.37	12.37	12.00	11.62
Netherlands	5.75	5.75	6.19	5.31	5.25	5.25	5.37	5.25	5.38	5.25	4.94
Portugal	24.57	20.71	16.07	14.96	14.90	15.05	15.07	15.09	n.a.	14.66	14.19
Spain	12.21	10.51	11.79	17.09	19.80	18.29	17.56	16.83	16.86	15.84	14.44
Switzerland	5.00	4.75	4.50	3.75	3.87	3.81	3.94	3.75	4.25	4.06	4.06
United Kingdom	9.88	12.75	11.25	9.25	9.00	9.25	9.44	10.31	10.19	9.19	8.87
Australia	12.90	19.75	15.10	14.50	13.80	13.35	12.40	12.50	11.25	13.45	12.25
Japan	6.33	7.03	4.34	3.89	3.70	3.73	3.74	3.71	3.84	3.88	3.90
New Zealand	15.00	20.00	24.25	25.70	20.35	18.75	18.70	18.30	18.90	n.a.	n.a.
South Africa	22.78	13.35	8.55	9.10	9.00	8.80	8.80	8.85	8.90	8.90	8.50
Chile	20.68	22.42	19.56	22.42	28.32	14.03	18.18	25.34	26.82	31.37	34.49
Hong Kong	8.25	8.50	4.62	5.50	6.25	6.87	6.19	6.56	6.37	6.19	4.06
Indonesia	19.00	15.00	19.50	16.50	18.00	27.00	n.a.	20.50	18.75	17.37	17.50
Korea	8.00	8.00	8.00	8.00	7.50	7.50	7.50	8.00	8.00	8.00	n.a.
Malaysia	10.30	8.20	6.00	2.70	2.80	2.75	2.75	2.76	2.66	2.96	3.44
Philippines	33.21	14.61	8.31	10.05	9.73	10.19	9.98	10.31	11.15	11.81	n.a.
Singapore	7.00	5.88	3.94	3.73	4.44	4.31	4.13	n.a.	n.a.	n.a.	n.a.
Taiwan	7.85	4.10	3.87	3.57	3.48	4.36	4.72	n.a.	n.a.	n.a.	n.a.

Commercial bank deposit rates

at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	8.35	7.75	6.30	6.80	7.05	6.90	6.77	6.95	8.05	7.40	5.41
Canada	10.05	9.40	8.15	8.25	8.45	8.50	9.25	9.20	9.60	8.55	8.75
Austria	7.50	6.50	5.50	4.37	4.15	4.15	4.25	4.30	4.60	4.75	4.45
Belgium	10.63	9.63	7.44	7.19	7.00	6.56	6.19	6.52	6.56	n.a.	n.a.
Denmark	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.	n.a.
Finland	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.25	4.40	4.80	3.95	3.85	3.75	3.75	3.75	3.90	3.90	3.70
Ireland	14.63	11.87	13.75	10.75	11.00	10.25	9.62	9.87	9.00	8.62	9.12
Italy	11.64	13.21	10.69	9.75	10.53	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	5.69	5.81	6.06	5.25	5.12	5.12	5.25	5.25	5.50	5.12	4.81
Norway	12.75	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	28.00	20.00	15.00	14.50	14.50	14.50	14.50	14.50	14.50	14.00	14.00
Spain	11.64	9.64	8.67	8.60	8.77	8.98	9.04	9.21	9.22	9.79	n.a.
Sweden	11.45	12.18	9.93	9.75	10.00	9.00	9.25	9.70	9.70	9.70	9.70
Switzerland	4.50	4.50	4.25	3.50	3.62	3.56	3.69	3.50	4.00	3.81	3.81
United Kingdom	9.88	11.75	11.19	9.25	8.81	9.25	9.31	10.12	10.00	9.12	8.81
Australia	12.75	18.80	15.56	15.21	14.42	13.85	13.41	12.67	12.14	n.a.	n.a.
Japan	6.38	7.04	4.55	4.11	3.88	3.99	4.09	4.10	4.45	4.63	4.46
New Zealand	15.25	19.98	23.50	23.85	20.00	18.40	18.35	18.40	18.75	11.45	n.a.
South Africa	22.88	13.20	8.65	9.15	9.25	9.00	9.00	9.00	9.35	9.35	9.35
Argentina*	31.23	5.40	8.41	7.17	7.81	7.96	10.24	12.20	18.20	9.10	8.92
Brazil**	27.00	18.00	220.00	24.00	n.a.	n.a.	n.a.	11.00	11.00	14.00	15.00
Chile	20.68	23.60	20.98	25.93	18.00	17.00	17.74	25.05	26.83	30.30	31.53
Hong Kong	8.25	6.50	4.62	5.50	6.25	6.87	6.19	6.56	6.37	6.19	4.06
Korea	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	8.00	n.a.
Malaysia	9.58	7.00	6.33	2.43	2.35	2.42	2.59	2.59	2.50	2.56	2.68
Mexico	47.45	72.90	94.30	94.30	94.30	94.30	94.30	94.20	94.20	94.20	94.20
Philippines	31.01	12.34	7.75	7.96	9.71	7.92	7.35	7.35	8.79	8.56	9.50
Singapore	6.13	5.26	3.63	3.63	4.88	4.38	4.25	n.a.	n.a.	n.a.	n.a.
Taiwan	6.50	5.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Venezuela	12.50	8.00	8.00	8.91	8.95	8.93	8.97	8.95	8.94	8.93	8.93

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	11.61	9.49	7.79	8.45	8.65	8.50	8.88	9.18	9.80	9.04	9.10
Canada	11.66	10.04	9.23	9.82	9.92	9.78	10.23	10.44	11.16	10.21	10.50
Austria	8.03	7.61	7.33	6.86	6.74	6.61	6.68	6.83	7.00	7.26	7.13
Belgium	11.56	9.60	7.70	7.66	7.76	7.82	7.64	7.93	8.25	8.32	n.a.
Denmark	14.60	9.67	11.04	13.09	13.03	10.09	11.57	13.02	12.33	12.56	11.84
Finland	10.73	10.58	7.80	7.77	7.88	7.85	7.86	7.87	7.83	7.77	7.64
France	12.70	11.33	9.89	9.51	9.86	10.40	10.39	10.60	n.a.	10.95	n.a.
Germany	7.17	6.57	6.25	5.98	5.99	6.31	6.39	6.59	6.86	6.62	6.46
Ireland	14.90	11.84	12.97	10.47	10.92	10.93	11.81	11.92	11.30	11.05	10.23
Italy	14.52	13.66	10.05	10.08	10.20	10.41	10.90	11.30	n.a.	11.41	n.a.
Netherlands	7.72	6.96	6.40	6.12	6.07	6.26	6.43	6.66	6.81	7.05	6.37
Norway	12.00	13.00	13.24	12.96	13.08	13.11	13.00	13.00	n.a.	n.a.	n.a.
Portugal	22.23	16.84	14.94	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	13.93	12.52	10.36	12.04	13.43	13.29	13.66	13.75	14.26	14.24	13.34
Sweden	12.04	12.11	10.66	11.07	11.77	11.37	11.79	11.92	n.a.	11.42	11.51
Switzerland	4.60	4.42	4.06	4.03	4.07	4.02	3.98	4.06	4.32	3.31	3.98
United Kingdom	10.25	10.35	10.17	8.87	8.79	9.15	9.69	9.93	9.85	9.22	9.23
Australia	13.50	14.85	13.40	13.05	13.00	12.80	12.95	12.95	12.50	13.65	13.30
Japan	6.47	5.92	4.61	3.42	3.38	3.91	4.44	4.43	5.72	4.58	5.00
New Zealand	16.90	17.00	16.00	15.95	15.65	15.45	15.80	15.65	15.45	15.70	n.a.
South Africa	16.55	18.09	15.06	15.30	15.70	15.60	15.18	14.98	15.12	15.44	15.30
Philippines	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Venezuela	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	n.a.	n.a.	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	10.75	9.50	7.50	7.75	8.25	8.25	8.25	8.25	8.75	9.00	8.75
Canada	11.25	10.00	9.75	9.25	9.50	9.50	9.50	10.00	10.00	9.75	9.75
Austria	9.25	9.00	9.00	8.75	8.75	8.50	8.50	8.50	8.50	8.50	8.50
Belgium	14.00	11.50	9.75	9.75	9.25	9.25	8.75	8.75	8.75	8.75	8.75
Denmark	10.50	8.50	8.00	10.00	10.00	9.50	9.50	9.50	9.50	9.50	9.50
Finland	10.68	10.37	8.81	8.86	8.89	8.91	8.93	8.94	n.a.	8.97	n.a.
France	12.00	10.80	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.25	6.75	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
Ireland	15.75	12.50	15.75	15.25	14.25	13.75	12.75	12.75	12.00	12.00	12.00
Italy	18.00	15.88	13.00	12.50	12.50	12.50	12.50	13.00	13.00	13.00	13.00
Netherlands	6.25	6.25	7.12	5.75	5.62	5.62	5.62	5.62	5.62	5.50	5.25
Norway	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	29.00	22.50	17.50	19.50	19.50	19.50	19.50	19.50	19.50	18.50	18.50
Spain	15.84	14.75	14.22	15.23	16.21	16.51	16.62	16.61	16.69	16.48	16.38
Sweden	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	5.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	9.50	11.50	11.00	9.50	9.00	9.00	9.00	10.00	10.00	9.50	9.00
Australia	14.00	21.00	18.50	17.50	16.75	16.25	15.75	15.25	14.45	14.00	13.75
Japan	5.50	5.50	3.75	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
New Zealand	14.00	21.00	18.50	29.00	22.50	22.00	21.00	19.00	20.00	n.a.	n.a.
South Africa	24.00	16.50	12.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
Argentina*	32.05	7.30	11.30	9.20	8.50	9.65	13.20	15.90	20.00	9.80	9.98
Brazil**	31.00	19.00	250.00	37.00	n.a.	n.a.	n.a.	15.00	15.00	18.00	18.00
Chile	60.82	33.34	29.13	36.07	40.27	30.91	27.11	31.66	33.12	37.33	40.20
Hong Kong	11.00	7.00	6.50	6.50	6.50	7.50	7.50	7.50	7.50	6.50	6.00
Indonesia	23.50	18.75	19.75	19.25	19.75	26.00	26.00	23.00	22.00	21.00	20.50
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	n.a.
Malaysia	12.00	10.50	10.00	8.50	8.50	7.75	7.68	7.68	7.47	7.47	7.47
Mexico	47.54	65.66	95.33	95.79	94.79	93.76	92.91	n.a.	n.a.	n.a.	n.a.
Philippines	44.00	15.00	10.50	8.55	9.31	9.50	9.50	9.50	9.87	10.65	11.50
Singapore	9.40	7.20	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.10	n.a.
Taiwan	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	n.a.	n.a.
Venezuela	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	12.25	10.15	8.88	9.60	9.55	9.55	9.90	10.15	10.75	10.25	10.30
Canada	12.42	10.74	10.18	10.44	10.44	10.46	11.05	11.74	11.81	11.22	11.32
France	12.94	11.76	10.18	9.82	10.05	10.38	10.37	10.77	11.07	11.28	n.a.
Germany	7.20	6.90	6.50	6.50	6.40	6.50	6.60	6.70	n.a.	n.a.	n.a.
Netherlands	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.
Norway	12.75	14.00	14.94	15.47	14.22	16.21	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	18.32	14.92	13.40	15.52	15.76	16.39	16.94	17.52	17.39	17.93	17.08
Sweden	12.33	13.25	11.99	12.15	12.89	12.47	12.68	12.89	n.a.	12.78	12.36
Switzerland	5.09	4.93	4.72	4.57	4.56	4.56	4.53	4.55	4.72	4.87	4.65
United Kingdom	11.64	11.47	11.71	10.09	10.19	10.15	10.55	11.41	11.43	n.a.	10.59
Japan	7.10	6.79	5.93	4.99	4.71	5.20	5.10	6.00	6.89	6.27	n.a.
Korea	15.00	13.60	12.80	13.00	12.80	12.70	12.70	12.60	12.80	12.80	n.a.
Venezuela	18.00	17.00	17.00	17.00	17.00	17.00	17.00	n.a.	n.a.	n.a.	n.a.

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Is Japan adjusting enough?, 1

- The challenge to industry, 2
- Domestic demand, 3
- The trade turnaround, 5
- Problematic policy trends, 8
- The inevitability of a higher yen, 10

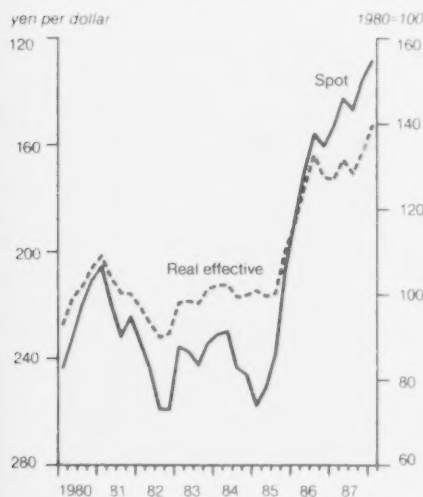
Japan's foreign investments, 14

- Banks' expanding role, 14
- Shifting investment patterns, 15
- Financing the LDCs, 16
- Growing importance, 16

Statistical appendix, 17

Chart 1

Yen exchange rates



Is Japan adjusting enough?

The sharp rise of the yen during 1985-86 triggered profound pessimism in Japan about industry's ability to cope. Deeply concerned, the Japanese government prevailed on the U.S. government to seek greater exchange rate stability. But though it gave a little ground last spring, the Japanese government at heart was unwilling to give up fiscal restraint. Markets, seeing the conflict between domestic policy and external adjustment, moved the dollar lower (see Chart 1).

Many Japanese companies saw disaster ahead. But their fears proved exaggerated; disaster did not strike. Tapping broad-based strength in consumption, housing, and investment, industry was able to raise output 4% in calendar 1987. Domestic demand growth ran 5% of GNP, underwriting a profits resurgence plus 4.2% real GNP growth despite a negative contribution from net exports (see Chart 2). Optimism returned to the Tokyo stock market, but is this well-founded?

Japan's economic growth should continue strong over the

first half of 1988. But the government plans to tighten fiscal policy. If monetary policy also turns less accommodative, domestic demand could be squeezed and overall growth could be dragged down well below Japan's potential. That would not be conducive to external adjustment. Net export adjustment already has slowed in volume terms. Although Japan's trade surplus has slipped, the combined surpluses of Japan and the principal Asian NICs — where Japanese business and technology investment is large — show little reduction.

The surpluses stir trade conflicts and increasingly pose investment issues too, especially for direct investment. Japan needs to reconsider its fiscal goals, as do the United States and Europe. Until fiscal policies become more consistent globally, it would be a mistake to hold the key exchange rates within some new straitjacket. Japan will have to come to terms with the need for renewed appreciation of the yen, an appreciation that will have to be all the greater if it insists on tightening domestic policy.

Chart 2

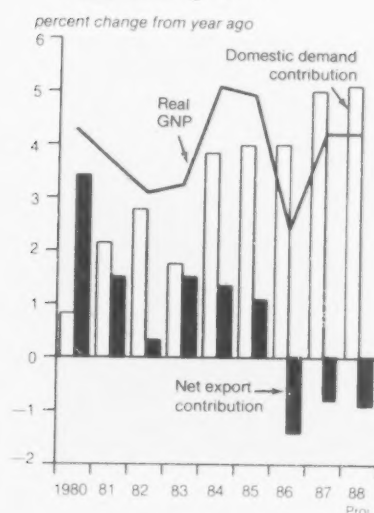
Real GNP growth

Table 1

Industrial performance

percent change at seasonally adjusted annual rates

	1980-1985	1985Q4-1987Q1	1987Q2-1987Q4
Industrial production	4.1	-0.1	10.6
Capital goods	7.1	-0.0	16.0
Construction goods	2.6	1.9	6.5
Consumer durables	8.9	-3.1	2.2
Consumer nondurables	2.8	2.7	2.7
Shipments	3.1	0.8	8.6
Capital goods	6.2	2.2	14.0
Manufacturing inventories	2.5	-2.8	-6.3

The challenge to industry

The dollar's slide after early 1985 threatened Japan's manufacturing industry as no other sector of the economy. During the first half of the 1980s, exports had accounted for half the growth in Japan's industrial shipments, and over 60% counting in domestic investment to service export markets. But from the second half of 1985 through early 1987, as exports faltered, industry's overall production and shipments stagnated (see Table 1).

The scale of the competitive challenge to Japan is exemplified by the near-40% drop in U.S. manufacturers' unit labor costs in yen terms since the dollar's peak (those costs are down some 3% in dollar terms). At the same time, the NICs of East and Southeast Asia offer much lower wage rates than Japan. Fast-rising productivity in a number of industries in these NICs has narrowed or erased the unit cost advantage of Japan's high level of labor productivity; moreover, as the yen has risen, most of the NICs, with the important exceptions of Taiwan and — more tentatively — Korea, virtually pegged their currencies to the dollar.

This backdrop has given Japanese firms a powerful incentive to shift production abroad, use more foreign parts, import assembled goods, boost domestic productivity, and contain costs generally. Japanese industry, particularly its manufacturers, now envisages that overseas facilities in North America, Europe, and Asia will provide a growing proportion of their worldwide production. Even so, expectations for increasing imports into Japan are not particularly strong; seemingly, overseas facilities are intended primarily to service

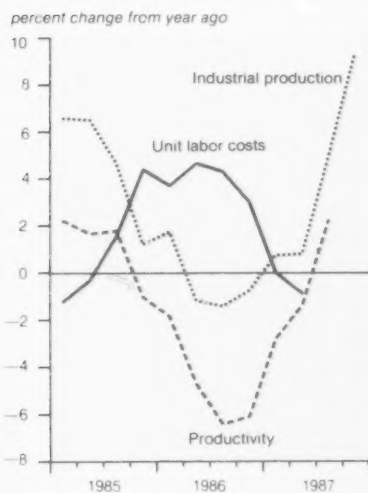
overseas markets.

On cost containment, it is often noted that the strong yen has benefited Japanese firms' material costs. The Ministry of International Trade and Industry has estimated that in the two years through the third quarter of 1987, lower materials prices reduced unit total costs of Japanese exports by 10% in yen terms. Foreigners, however, also enjoyed lower materials prices, so it is doubtful that Japanese firms recovered competitiveness thereby. By boosting productivity 8.6% between 1985 and 1987, Japanese manufacturers cut unit labor costs 3.6% (see Chart 3) and subtracted about 2% from their unit total costs in yen terms. But the reductions enjoyed by their foreign rivals were much greater — on the order of 25% in yen terms in the case of U.S. manufacturers. Thus, despite impressive efforts in cost containment, Japanese industry has not been able to offset the dollar's slide fully.

Japanese firms therefore have had to accept greatly reduced profits on their export sales. But their recent domestic experience has compensated. Manufacturers have recouped most of their 1986 profit declines and could report an average 40% increase for FY1987; domestically oriented industries using foreign inputs, such as food and chemicals, are doing especially well. The profit recovery has been crucially dependent on the strengthening of domestic demand since last spring. This permitted some firming of domestic sales prices and substantially higher sales volume. Machinery sectors, such as automobiles and electronics, were conspicuous beneficiaries, attracting domestic consumer interest even as exports flagged.

Chart 3

Unit labor costs and productivity in manufacturing



By contrast, shipbuilding, aluminum smelting, and oil refining remained weighed down by structural difficulties. By the fourth quarter of 1987 most manufacturing sectors had joined the recovery: for example, chemicals and paper, thanks to domestic demand; and steel and metals, thanks to public works spending. Overall industrial production was up 9.6% from a year earlier and machinery orders up 12.8%.

Investment has turned upward accordingly. Following stagnation through most of 1986, real business fixed investment has grown at annual rates of 7%-10% (see Chart 4). For most of 1987, construction firms and other nonmanufacturers led the advance. But construction likely will slow in 1988; retail investment may only match last year's growth; and utilities, having been forced to pass on to industry and consumers some of the benefits of weak oil prices and a strong yen, are likely to cut investment.

Manufacturers are set to take up the slack. In the fourth quarter of 1987, capital goods shipments were up 10.7% year-on-year. True, steel and shipbuilding plan to squeeze investment. But such industries as paper, fabricated metals, and chemicals have begun to face capacity constraints and plan sizable expansion. Machinery industries, though not yet facing capacity constraints, are investing to improve productivity.

In sum, Japanese industry is faring remarkably well despite the yen's escalation. The much-publicized cost cutting at home and shifting of production overseas have helped, but more important has been the past year's domestic sales strength. The investment accelerator now is coming into play. Business fixed

investment looks set to rise 8.6% this year, following 1987's 8.3% estimated gain. In the medium term, however, the investment outlook will be dominated by demand trends, both external and domestic.

Domestic demand

Expert opinion, both Japanese and foreign, has repeatedly urged that Japan face up to difficult structural changes and rebase its growth on domestic demand. In its 1986 and 1987 reports, the quasi-official Maekawa commission endorsed that view. On the domestic demand aspect, success depends ultimately on healthy growth in real private consumption, housing investment, and public works. These sectors were indeed healthy in 1987, especially in the second half. Of the 5.1% estimated growth in domestic demand for the calendar year, private consumption provided over two-fifths (rising 3.9%), housing investment a further fifth (jumping 20.6%), and public works just over one-tenth (up 8.4%).

Earlier in the decade, during 1980-84, Japan's domestic demand growth averaged only 2.3% annually. Real private consumption grew less than 3%. At the same time, despite longstanding dissatisfaction with housing conditions, housing investment was depressed, in part through cuts in government programs. Public investment suffered its share of fiscal austerity too. Consumption and housing further were hit by growing uncertainty about employment and real incomes, an uncertainty that prompted workers' households to boost their saving rate more than two percentage points between 1982 and 1987.

Chart 4

Business investment

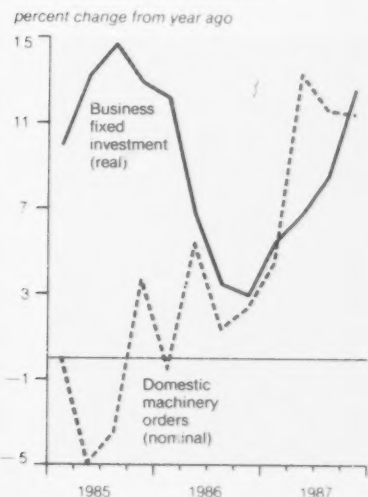
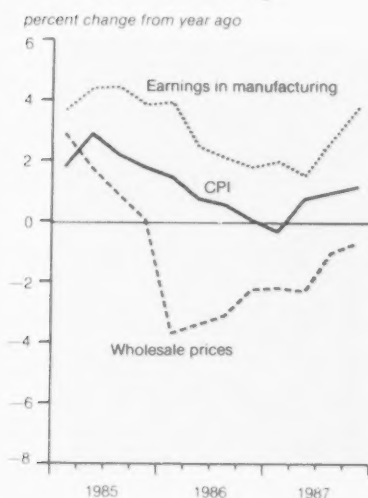


Chart 5

Prices and earnings



Insofar as the 1987 speedup in domestic demand can be credited to government policy, the honors go principally to monetary policy. Money supply growth (as measured by M2+CDs) bottomed out in 1983 and trended higher to a peak of 12.4% year-on-year last November. Though domestic liberalization and yen internationalization muted the expansionary effect, last year's monetary growth certainly was not restrictive of real demand growth, still less of household asset values. As for fiscal policy, the economy's sluggishness early in 1987 induced the government to enact a Y5 trillion spending package, with more genuine spending than usual — about Y3 trillion spread over 1987 and 1988. In addition, following rejection of its grand design for revenue-neutral tax reform, the government conceded Y1.5 trillion in personal income tax cuts that boosted disposable income some 0.5% in 1987.

Household incomes further benefited in 1987 through low inflation, real earnings gains, and higher employment. Wholesale prices declined 3.8% on average in 1987; yen appreciation and oil price weakness forced down traded goods prices and utilities' charges; these declines outweighed modest domestically generated price increases for home-produced lumber, steel, and other construction materials. Tokyo consumer prices rose 0.4% on average in 1987, ensuring that nominal increases in average earnings largely provided real increases (see Chart 5). The employment picture turned around in the second half of the year. By this January, the job openings/applicants ratio reached its highest in over ten years. The unemployment rate

peaked at 3.2% a year ago and has fallen to the 2.6%-2.7% range since October. Prosperity has been concentrated in Tokyo but has gradually diffused nationwide. Overall retail sales rose 4.9% last year, with electrical appliances and electronic goods surging 13.4%. New car sales rose 5.4%, to a record 6.02 million units; import sales jumped 43% — though they took only 1.6% of the domestic market.

Meanwhile, easier monetary policy and financial wealth effects stoked a housing investment boom. This began as a regular upturn in 1983, after housing prices, relative to incomes, declined to a five-year low. The boom started in 1986, as monetary growth accelerated. And in 1987 housing starts ran 47% above the low of 1983 (see Chart 6), exceeding the U.S. pace in absolute numbers. Lower interest rates, liberalized tax treatment, plus higher stock market and other asset values made housing loans more supportable. A lack of other investment opportunities pushed the private sector to unlock land as collateral, devise new financing methods, and experiment with longer maturities. Banks increased their housing loans by Y4 trillion in 1987, twice the 1986 pace and more than seven times the average of the previous four years.

For the future, the housing boom is imperiled by high land costs. Already these have boosted the ratio of housing prices to income to the level that prevailed just before the 1970s' slump began. Year-on-year growth in overall starts reached 31% last July but was down to 19% in January this year. The remaining strength in the owner-occupied sector is unlikely to offset the weakness emerging in rentals starts. Con-

Chart 6

Housing starts and investment

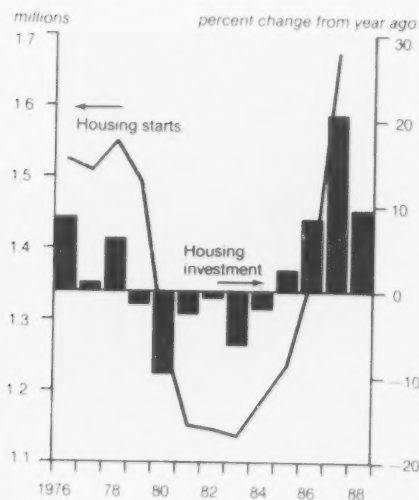
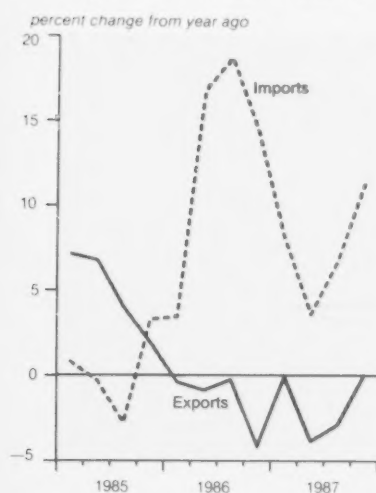


Chart 7

Export and import volume



dominium prices already have softened in Tokyo. Moreover, prices of construction materials have eased in recent months. Housing investment still should contribute positively to 1988 GNP growth on a full-year basis, but may come to mimic the retreat that occurred in the early 1970s.

Given the positive employment trend, household consumption should stay strong in 1988, though capital gains and other wealth effects likely will be less potent than last year and there may be some slippage in real disposable income growth. In 1988 average nominal earnings would have to rise about 4% to maintain real income growth at last year's pace as inflation edges higher. While higher bonuses could help, wages would have to grow more rapidly than in 1987; publicized settlements in the so-called spring offensive, which tend to overstate the actual outcome, would have to reach 5%-5.5%. The strong yen makes employers reluctant to grant such increases. The government's fiscal plans also darken the consumption outlook; if implemented, they would tend to depress household disposable income and might not bring much reduction in household saving.

pan's structural adjustment and demand expansion. Structural adjustment depressed domestic heavy industry and textiles output, in turn cutting imports of industrial raw materials. But it helped boost imports of steel 40% in dollar terms, and of metal products and textiles over 50% — albeit from low bases. The housing boom took lumber imports up 15%, while the recovery in consumption sparked a 49% rise in car imports.

The breadth of the import gains belies the notion that actual and potential foreign suppliers, including U.S. exporters, are generally unable or unwilling to use their newfound competitiveness to build market share in Japan. That may be true of some, whose best business strategy may be to maintain selling prices in yen terms in the Japanese market. Nonetheless, U.S. data show that FOB export and domestic selling prices have scarcely diverged for U.S. firms at large, are rising much less than U.S. import prices in dollar terms, and are down sharply in yen terms. Of course, Japan's internal distribution system may limit the "pass-through" of lower import prices to ultimate purchasers, if not, on average, to the extent suggested by casual consumer-level observations (these often confuse items imported from the United States and those sold by U.S. firms but produced in Japan or elsewhere).

Japan's exports of goods and services rose an estimated 3.5% in volume terms last year. The increase was confined to services, principally investment income. For goods alone, the yen's strength provoked a 7.1% drop in the volume of shipments to the U.S. market last year and a 2.1% shrinkage in export volume over-

Table 2

Trade by product

billions of dollars, customs clearance basis

	1985	1986	1987
Exports	176	209	229
Machinery	126	155	171
Electrical products	46	57	64
Motor vehicles	38	43	45
Other	42	55	62
Imports, CIF	130	126	149
Excluding gold	128	119	146
Petroleum and products	43	26	29
Manufactures	38	46	66
Chemicals	8	10	12
Machinery	12	15	19
Other	18	21	35
Trade balance, CIF	46	83	80
Balance of payments basis, FOB	56	93	96

The trade turnaround

Spurred by domestic demand growth and the further rise in the yen, Japan's imports in 1987 rose more than 9% in volume terms on the GNP basis, including services, and by 7.2% on the customs clearance basis (see Chart 7). In dollar terms, goods imports rose 18.2% in total, and as much as 22% if gold is excluded (see Table 2). Sectoral import trends dovetailed with Ja-

Table 3

Bilateral trade balances

billions of dollars, CIF, customs clearance basis

	1980	1985	1986	1987
Total	-9	43	83	80
Industrial countries	12	49	59	71
United States	7	39	51	52
European Community	9	11	17	20
Developing countries	-26	-9	8	7
Southeast Asia	-1	3	13	14
Hong Kong	4	6	6	7
Korea	2	3	5	5
Singapore	2	2	3	4
Taiwan	3	2	3	4
China	1	6	4	1

all. The impact has varied greatly across industries. Producers of textiles, steel, and cement have clearly lost out relative to machinery producers. There were losers among the latter too. In 1987 vehicle exports, having slipped for the second straight year, ran 10% below their 1985 peak in unit terms; shipments of television sets plunged 60%, radio receivers 41%, and tape recorders almost 13% from 1985 levels.

Japanese exporters have found increasing compensation through higher prices. Manufacturers raised theirs 11.8% in dollar terms last year. Matching that increase against the dollar's 16.5% depreciation against the yen, the pass-through on Japanese exports averaged 71% — well up from 49% in 1986. Accordingly, despite the volume declines, the overall dollar value of Japan's exports in 1987 rose 9.6% above the previous year's level. This was enough, given the huge disparity between export and import levels, to hold the trade surplus close to the 1986 level. Indeed, the \$3 billion decline in the surplus on the customs clearance basis became a \$3 billion increase on the balance of payments reckoning.

Though Japan's overall trade surplus was much the same in 1987 as in 1986, its bilateral position weakened with countries where weak economic growth or rising commodity prices outweighed exchange rate influences. For example, its surpluses with China and Latin America shrank sharply; and its deficits widened with OPEC members, including Indonesia, and a few other commodity exporters. By contrast, Japan's surpluses with its main trading partners — the United States, Europe, and

Southeast Asia — all expanded in dollar terms (see Table 3). Were global trade imbalances coming down satisfactorily, these widening Japanese bilateral surpluses would be of little concern economically. But the global picture is not satisfactory.

Japan's surplus with the United States rose \$700 million last year, to \$52 billion according to Japanese statistics. Excluding gold, the surplus actually diminished \$2 billion. Sector surpluses shrank in steel, metals, automobiles, and textiles. Deficits widened in various commodities, chemicals, and aircraft. But most machinery sectors reported rising surpluses. So too did such sensitive areas as semiconductors and computers despite the retaliatory U.S. tariffs imposed last spring.

The slow pace of Japan-U.S. bilateral adjustment has much to do with the daunting arithmetic of correcting an imbalance in which Japan's exports to the United States are almost four times its imports. Another obstacle — not yet pressing, but potentially so if the U.S. economy continues to grow strongly — is the emergence of more pervasive capacity constraints on U.S. exports (so far, capacity shortages face only a few U.S. industries).

Yet another drag on bilateral adjustment, at least for the time being, stems from stepped-up Japanese direct investment in the United States. Japanese construction firms usually supervise the design and building of new plants, typically specifying Japanese machinery. With steadily rising investment, such machinery imports may hold up for some time to come (they may have contributed significantly to the more than 20% volume increase in total U.S. capital goods im-

ports during 1987 on a fourth-quarter/fourth-quarter reckoning). Once Japanese firms complete their projects and encourage their suppliers to follow suit, a growing proportion of the value-added in their U.S. sales will be U.S.-generated; with time, their U.S. production should displace Japanese exports and even engender U.S. exports to Japan. For example, Honda is exporting its first 540 U.S.-built cars to Japan this March, with a target of 5000 to be exported this year.

At the sectoral level, albeit to a much lesser extent overall, Japan-U.S. bilateral adjustment is hindered by trade policies. For example, in agriculture the United States seeks complete liberalization. Yet Japan is offering nothing on rice, merely expanded quotas for oranges, and a partial liberalization over eight years for beef premised on higher domestic production. On semiconductors, although Japanese firms no longer seem to be dumping chips in third-country markets, the two nations are at odds over foreigners' opportunities in Japan. As for construction, especially public works, foreign access remains minimal.

Tensions also afflict Japan's trade with Europe, where there is stiffening resistance to Japanese auto exports and complaints more broadly about "screwdriver" assembly plants that add little European value to Japanese parts exports. Japan's surplus with the EC reached \$20 billion in 1987, up from \$17 billion in 1986. While some of the increase reflected lower European gold exports to Japan, the yen's appreciation boosted the value of trade by raising prices in dollar terms and increasing the relative profitability and attractiveness of the European market. The bilat-

eral surplus may prove stubborn in dollar terms, if less so in volume terms. On the positive side, Japan's deficits with Europe on chemicals and metals are expanding, the surplus on steel trade is stagnant, and the textiles surplus is declining. But Europe is doing less well in the machinery sector, which alone accounts for two-thirds of the bilateral trade total; here, the Japanese surplus rose 20% last year, as did the surplus on automobile trade despite the sales successes of European cars in Japan.

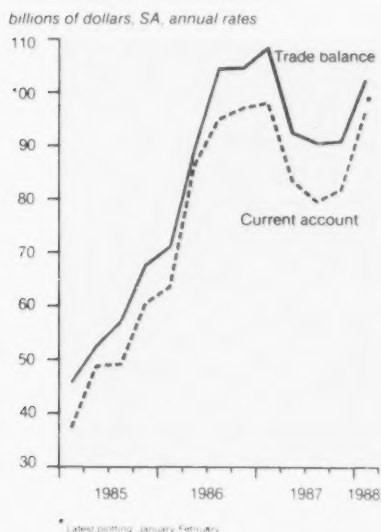
Japan's surplus with the four principal Asian NICs hit \$20 billion in 1987, up \$3 billion from 1986. Hong Kong, Singapore, and Taiwan each saw their bilateral imbalances widen, leaving Korea a noteworthy exception. The rise in Japan's surplus not only reflected higher Japanese export prices in dollar terms but also the shift of assembly and low-technology production to the region. In most cases the shift has boosted Japan's exports to, but not substantially Japan's imports from the region.* Southeast Asian production is pressuring some Japanese products and industries, but is far from displacing Japanese output in the aggregate. "Hollowed out" is not a credible characterization of today's Japan, nor of tomorrow's.

To sum up, 1987 marked a step forward in Japan's trade adjustment. On a year-on-year comparison, the trade surplus trended lower from May onward and the

*Japan's machinery exports to Southeast Asia grew \$7.8 billion last year, but imports just \$1.2 billion. Still, in some industries with standardized products the gap has narrowed, or even reversed: for Japan, trade in textile manufactures swung from near-balance in 1986 to a deficit of \$1.2 billion in 1987; and although the surplus on steel trade expanded from \$3.5 billion to \$3.7 billion, it almost surely rested on a reduced volume of net exports.

Chart 8

Trade and current account balances



current account surplus, though totaling \$86.7 billion in 1987, shrank to 3.6% of GNP from a peak of 4.4% in 1986 (see Chart 8). Volume trends continued constructive, if somewhat hesitant toward year-end. For 1988, higher prices in dollars are expected to cut further into Japan's export volumes, slowing the growth in dollar export earnings. Strong domestic demand and the appreciated yen should boost imports smartly, principally of manufactures. On the customs clearance basis, the trade surplus may drop \$11 billion. But, as investment income continues to rise on Japan's net external assets, the current account surplus may narrow only \$8 billion, to a still-massive \$79 billion.

Problematic policy trends

The prospective narrowing of Japan's external surpluses in 1988 delivers a negative contribution to Japan's economic activity amounting to some 0.9% of GNP. Fortunately, business investment is in cyclical upswing and both domestic consumption and housing investment have begun the year with considerable momentum. Even if both slow during the course of 1988, as seems especially likely for housing investment, overall domestic demand could average 5.4% above the 1987 level. That would allow real GNP growth of 4.2% this year — essentially repeating last year's result and within the 4%-5% range that most observers judge to be Japan's potential. And, by coupling a strongly positive domestic contribution with a sizably negative external contribution, Japan's growth is unlikely to provoke serious criticism.

Yet with their views of Japan's potential still colored by the much lower domestic demand growth of the early 1980s, the authorities are reasserting the need for fiscal discipline. A tightening of fiscal policy has been penciled into the draft budget for FY1988. The "General Accounts" deficit should be down by 0.6 percentage point to 2.4% of GNP, barely half the level of the late 1970s (see Table 4). Combined, all levels of government may well move into surplus. New savings taxes will take effect on April 1 and will substantially undo last year's personal tax cuts. On the spending side, public works outlays are to rise only slightly in the new fiscal year. Spending by local governments and through the central government's Fiscal Investment and Loan Program should expand some. But central government's General expenditures — the principal spending conduit — are expected to dip below the current level while increases in its other spending merely reflect debt servicing or revenue pass-through to local budgets.

It is hard to describe all this as expansionary. A slower rate of expenditure reduction does not add up to an increase in spending. More important, the fiscal posture cannot be evaluated solely from initial budgets; two sizable supplementaries were enacted in 1987, whereas 1988 may see none of substance. Adjusted also for cyclical factors, the fiscal stance of the government at large looks neutral at best this calendar year.

Moreover, now that currently strong domestic demand has quelled calls for renewed stimulus, the Ministry of Finance (MOF) has reasserted two earlier aims: to complete a revenue-

Table 4

Government budgets*

fiscal year data; annual average percent change, except as noted

	1975- 1980-			
	1979	1986	1987	1988
<i>General Accounts</i>				
<i>Tax revenues</i>	9.6	8.5	2.9	4.6
<i>Expenditures</i>	15.2	4.9	7.8	-2.6
<i>"General"</i>	14.6	2.7	7.2	-3.7
<i>Social welfare</i>	19.6	4.0	0.0	2.9
<i>Public works</i>	17.6	0.6	4.0	0.8
<i>Defense</i>	11.3	6.0	5.4	5.2
<i>Fiscal Investment and Loan Program</i>				
	12.3	4.6	10.8	2.8
<i>Local Public Finance Program</i>				
	13.0	3.3	4.0	5.3
<i>Fiscal balances, percent of GNP</i>				
<i>General Accounts</i>				
	-4.9	-4.5	-3.0	-2.4
<i>General government**</i>				
		-2.8	-0.8	0.0
<i>Cyclically adjusted annual change***</i>				
		0.5	0.6	0.2
<i>Memo</i>				
<i>Consumer prices (Tokyo)</i>				
	7.4	3.2	0.4	1.3

*FY1988 figures are from the draft initial budget and assume no supplementaries; FY1987 figures include the two supplementaries. For both years, general expenditures and public works include spending financed by sales of telephone company equity. Fiscal Investment and Loan Program figures exclude certain managed funds not allocated for spending.

**Combines all levels of government; calendar year estimates by OECD through 1986. The general government balance, which includes fairly stable social security surpluses but excludes proceeds from sales of the government's telephone company holdings, has tended toward surplus mainly through lower deficits in the General Accounts.

***About 0.1% in 1987, excluding windfall capital gains taxes.

Table 5

Tax reform proposals

trillions of yen

	Original	Current
Tax cuts		
Individuals	2.7	3.5*
Corporations	1.8	1.4
Tax increases		
Savings	1.6	1.6**
Indirect taxes	2.9	3.0
Miscellaneous	0.0	0.5

*Including ¥1.54 trillion effective in FY1987.

**Effective April 1, 1988.

neutral and base-broadening overhaul of the tax system; and to eliminate deficit bond issues by FY1990, at the same time limiting construction bond issues.

The current tax reform plan is essentially unchanged from the one first approved by the governing Liberal Democratic Party (LDP) in late 1986 (see Table 5). Although the current plan offers a miniscule overall net tax cut of ¥0.4 trillion, it could well dampen domestic demand. In the version proposed by the LDP this winter, a value-added tax (VAT) would be introduced in FY1989 to raise ¥3 trillion annually, of which ¥2 trillion would be returned to consumers through other tax cuts. On balance, their disposable income and likely spending would be reduced. That would have negative implications for business investment, notwithstanding the incentives conferred by the planned ¥1.4 trillion cut in business taxes.

Besides its problematic macroeconomics, the plan has stirred considerable opposition, in part because the VAT proposal conflicts with official positions taken some years ago. There is awareness too that, once enacted, raising the VAT above the 3% introductory rate would pose little administrative difficulty. A recent and vaguely worded agreement between the governing and opposition parties has been less explicit about full offset of tax cuts with a new sales or VAT-style tax, but revenue neutrality still seems to dominate MOF discussions.

In any case, the plan fails to address major public concerns. In particular, it shirks real reform of existing tax policies that aggravate Japan's critical housing problem. These policies discourage development of underutilized

land in the metropolitan areas; and, as measured by relative tax expenditures, they provide barely one-twentieth the level of U.S. housing support.

Shortcomings in tax policies are accompanied by a parsimonious approach to public spending. On MOF's revenue assumptions, its deficit goal requires that medium-term spending growth be held to just 0.7% annually. Yet the desire to avoid excess does not by itself demonstrate that spending growth should be held far below GNP growth. For example, better living conditions demand more public spending to improve transportation — to enlarge practical commuting areas — and to develop other infrastructure befitting a larger and more prosperous population.

To resist spending demands, the government frequently invokes the specter of insupportable demands on the social security system generated by rapid increase in the over-65 population and higher spending per beneficiary. The specter is not compelling. Even by the year 2025, a recent IMF study concluded, Japan's social expenditures on health, education, and welfare look set to be a smaller fraction of GNP than France and Germany spent in 1980. Besides, to the extent that public provision replaces private, there is no added burden on the economy.

The official stance on fiscal policy would be correct were medium-term real GNP growth sure to match Japan's potential. But the potential is unlikely to be realized on a sustained basis if fiscal tightening resumes as planned. The opposite course makes more sense. For one thing, Japan can readily finance an easier fiscal policy; after all, the net public-sector debt has

Table 6
Public debt*
percent of GNP

	1973	1979	1983	1986
Gross				
Japan	17	47	67	69
United States	41	37	44	51
Germany	19	31	41	42
France	25	26	30	36
United Kingdom	70	56	54	54
Net				
Japan	-6	15	26	26
United States	23	19	24	29
Germany	-7	12	21	22
France	8	20	13	19
United Kingdom	58	49	47	47

*All levels of government. In Japan gross debt vastly exceeds net debt thanks to cross-holdings among government accounts
Source: OECD.

stabilized at a moderate ratio to GNP (see Table 6). For another, easier fiscal policy would permit a desirable shift in the "mix" toward less accommodative monetary policy.

For several years past, the government's fiscal stringency has inclined it to a relatively easy monetary policy. This has served the twin purposes of fortifying economic growth and containing upward pressure on the yen. Over the past year, success in the first purpose has been more evident than in the second. Additional monetary ease now holds little attraction for the Bank of Japan.

Last summer, the stable yen ordained by the ill-starred Louvre Accord joined with rising commodity and construction material prices to fan inflationary fears in Japan. Those fears subsequently have eased, not least because the yen has been allowed to rise. Even so, consumer price inflation is likely to creep upward in 1988 to perhaps 1.4% by year-end and some 2% in 1989-90. There is, however, some risk to this comforting inflation outlook from the tightening labor market portrayed by the closely watched job offers/applicants ratio (see Chart 9).

Another inflation risk lies with the 12% trend growth in Japan's money supply (see Chart 10). In part this high growth is accommodating rising foreign demand for yen. When, from time to time, Japan intervenes to stem the yen's appreciation, whether caused by short-run speculative interest or the currency's growing internationalization, the intervention only has lasting success if not sterilized; but non-sterilized intervention, since it is not offset by an equivalent bond sale, raises Japan's money sup-

ply. Domestic financial liberalization can do likewise, as was seen in 1987 following the reduction in minimum denominations for three types of deposits that pay market-related interest rates. Further liberalization is due this April. If "nonmoney" shifts into "money," measured money growth again will be inflated. Still, neither internationalization nor liberalization rationalizes 12% money growth indefinitely.

With a tightening fiscal policy, a monetary goal of 9%-10% growth in M2+CDs looks reasonable for the long haul: 4%-5% for real GNP growth, 2% for inflation, and the rest for internationalization and liberalization. Yet if monetary growth is relied on to achieve GNP growth at potential, the yen would come under less upward pressure — and Japan's real output growth would embody less external adjustment — than under the opposite policy mix of fiscal ease and monetary restraint. For purposes of global adjustment, fast GNP growth is welcome but not sufficient. What matters as much is the domestic/external composition of GNP growth. More than anything, that composition responds to the policy mix through the exchange rate.

The inevitability of a higher yen

During the final days of 1987 the yen ran up as high as Y120 to the dollar. Its real broad effective exchange rate hit 146 on a 1980=100 basis. And its real value relative to the dollar alone surpassed even the record peak in October 1978. In the first two months of 1988 the dollar rate averaged Y129 as reports of lower trade surpluses for Japan and lower deficits for the United

Chart 9

Labor market conditions

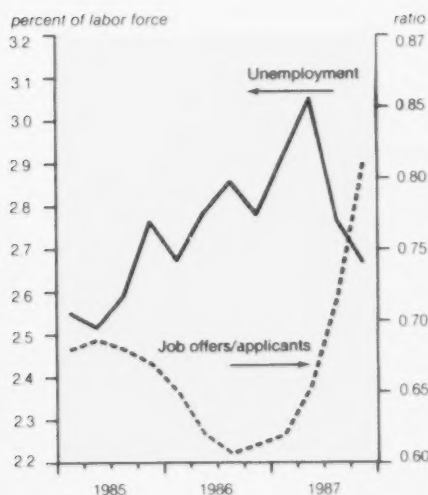


Chart 10

Money supply: growth and velocity

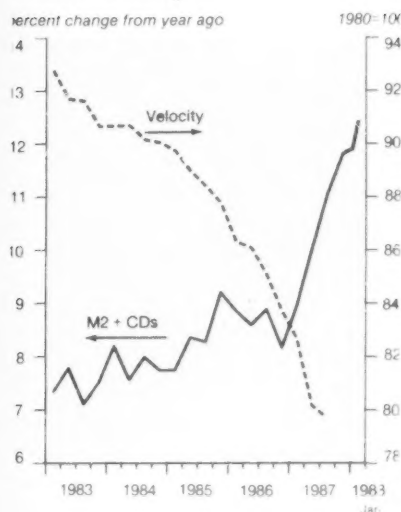


Table 7

Summary outlook

percent change, except as noted

	1987	1988	1989	1990
Real GNP	4.2	4.2	3.2	3.3
Domestic contribution*	5.0	5.1	3.7	3.6
Foreign contribution*	-0.8	-0.9	-0.5	-0.3
Domestic demand	5.1	5.4	3.9	3.8
Consumption				
Personal	3.9	3.5	3.4	3.2
Government	-0.5	2.4	2.8	2.8
Investment				
Business fixed	8.3	8.6	6.6	5.9
Residential	20.6	9.5	1.0	1.7
Government fixed	8.4	9.0	3.2	4.1
Change in inventory investment**	-0.3	0.3	0.1	0.0
Exports	3.5	3.8	1.1	2.4
Imports	9.1	10.9	4.9	3.4
External accounts				
\$ billions				
Trade surplus, CIF	80	69	54	45
With United States	60	56	52	46
Current account	87	79	70	68
Percent of GNP	3.6	2.7	2.0	1.6

*Percentage points.

**Percent of GNP.

States encouraged the view that the yen's nearly three-year climb was due for a pause. Yet already Japan's real net export decline has slowed. It could halt altogether, barring major economic growth or policy surprises. Equally, the trade and current account surpluses may not continue to fall much longer.

That may seem a pessimistic prognosis, given the widespread impression that the yen has overshoot "purchasing power parity." Although this criterion appeals to an idealized sense of fairness in international trade, it poses measurement difficulties in practice. More important, it largely misses the point in assessing what it takes to accomplish growth-oriented global trade adjustment. By and large, Japanese industry has come to terms with the present level of the yen. Besides, studies of industrial-country experience find unusually low exchange rate responsiveness of Japan's trade, both exports and imports.

It is little wonder that the trade adjustment induced by yen appreciation falls short of the more optimistic expectations, leading some to conclude that further appreciation would be counterproductive. It would not have to be, for the adverse effects on growth can be offset by government action, however distasteful, to official opinion. Besides, if trade responsiveness to currency adjustment is low, the logical conclusion is that imbalance correction requires major currency change.

If the yen rises, in real as well as nominal terms, the reduction in the trade surplus in hand for 1988 should continue into future years. Assuming fiscal policy returns to the more restrictive course suggested in the 1988

budget, Japan's real GNP growth could slip to 3%-3.5% annually before long (see Table 7). This year's projected 5.4% rise in domestic demand could be down to 3.8% two years hence. Shrinkage of Japan's real net exports might fade from 0.9% of GNP this year to only one-third as much by 1990, leaving the overall trade surplus close to \$45 billion.

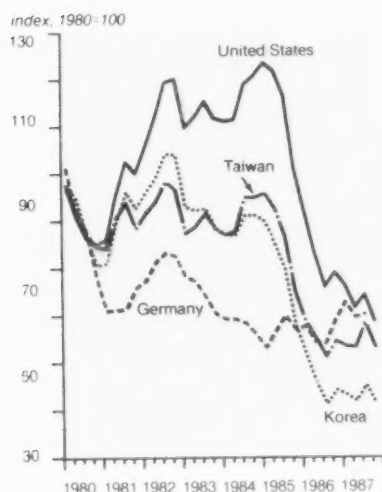
Awkwardly, the surplus with the United States alone might be at much the same level. Moreover, bearing in mind the secular rise in investment income, Japan's current account surplus could be as much as \$68 billion even in 1990. That would be less than 2% of Japan's GNP and thereby acceptable to those who believe Japan destined to run a substantial structural surplus. Yet a sustained surplus of such magnitude surely would cast a long shadow over the world financial scene.

One way or another, more adjustment will have to be achieved. The best solution would have Japan's policymakers take the initiative to sustain domestic demand growth close to the 5%-6% growth rate experienced since last spring, while conceding yen appreciation to prevent overheating of the economy. Given Japan's fiscal plans, such a positive outcome seems highly unlikely. The alternative solution lies through a much higher yen. In this, the markets likely would take the initiative, since it is hard to see them sitting still for a slim \$20 billion reduction in Japan's current account surplus over a three-year period. Once the markets judge the time is right for the yen to resume its upward course against the dollar, the Bank of Japan would be unwise

Chart 11

Japan's competitiveness in manufacturing

ratios of selected countries' prices
to Japan's



to intervene with any enduring determination. Massive nonsterilized intervention would make a farce of domestic monetary restraint.

Of course, the Japanese authorities would prefer that the yen not be alone in its ascent. There is particular sensitivity about the exchange rate practices of the principal Asian NICs, whose competitiveness — particularly Korea's — is a nagging worry to much of Japanese industry even as these countries provide attractive locations for offshore production. Chart 11 indicates that since early 1985, and also over the longer haul since 1980, the NICs' price competitiveness vis-à-vis Japanese industry has benefited hugely by exchange rate changes. Understandably, Japanese firms are concerned, not merely at increased penetration of Japan's domestic market but also for the

world market implications. So too are European and U.S. firms. The established industrial nations are keen that the Asian NICs, as significant players in the globalization of output and finance, play by a fair and predictable rule book, including rules on exchange rate policies.

It would be unrealistic to seek speedy development of an Asian regional exchange rate arrangement along the lines of the European Monetary System. After all, there is a history of cultural and political differences and rivalries among the Asian countries. Their economies vary widely in industrial maturity and sophistication, per capita income, and capital market development. Besides, the direct trade links among the Asian economies are weak compared with those among European economies, even those that existed when the European Community was founded.

Yet Japan and the Asian NICs have an important mutuality of interest in that all have the United States as their principal export market (see Table 8). In the past, as exemplified in the choices of the Korean steel and automobile industries, both accessibility and profit potential obliged the NICs to go for the North American market. Collectively, the Asian NICs ran a \$38 billion surplus last year in their U.S. bilateral trade (U.S. CIF value), up \$7 billion from 1986 and partly reflecting displacement of Japanese exports. Some of the NICs' exports to the West are the product of Japanese direct investment in the NICs, and many more are vitally dependent on Japanese components. Moreover, responding to the same concerns that Japanese firms have had for assured access to their key foreign market, NIC-

Table 8

Trade orientation, 1987

	Exports		Jan-Sep % shipped to				
	\$ billions	% of GNP	United States	Japan	Europe*	Selected NICs**	Other
Japan	224	9	37	—	12	17	34
Hong Kong	48	107	29	5	12	10	44
Korea	46	38	39	17	11	8	25
Singapore	27	138	24	9	9	11	47
Taiwan	53	54	45	12	12	10	22

	Imports FOB		Jan-Sep % sourced from				
	\$ billions	% of GNP	United States	Japan	Europe*	Selected NICs**	Other
Japan	128	5	22	—	9	12	57
Hong Kong	44	97	9	19	9	17	46
Korea	39	33	22	34	10	4	30
Singapore	30	155	15	21	10	10	44
Taiwan	32	33	21	35	10	5	29

*France, Germany, Italy, and United Kingdom.

**Hong Kong, Korea, Singapore, and Taiwan.

based companies are beginning to invest in U.S. production facilities.

Thus from the U.S. or a more broadly global view, there is a linkage between Japan and the Asian NICs that none can afford to ignore. More extensive consultation within the region would aptly recognize the reality that the rest of the world increasingly views it as an economic unit. The overall current account surpluses being run by these NICs — especially by Korea and Taiwan, to the tune of \$10 billion and \$21 billion respectively in 1987 — are compelling reason for appreciation of their currencies. Taiwan has allowed its currency to rise 24% against the dollar since end-1986 while also taking steps to liberalize a highly protected home market. But Korea has been very reluctant to accept that its surplus, which has far outpaced expectation, requires more than token corrective measures. During the past year, Korea has conceded a modest 8% appreciation of the won against the dollar, but most observers believe that substantially greater appreciation will be necessary to curtail its surplus. Hong Kong has come under pressure from the U.S. administration to revalue its pegged currency. Its trade surplus hit \$4.6 billion last year, up \$1.2 billion from 1986, and it presumably moved further into current account surplus. Revaluation by Hong Kong, besides

helping contain its surplus, would provide cover for more sizable moves by Korea and Taiwan.

Still, currency actions by the NICs do not relieve Japan of the need to let the yen go higher. To the contrary, as and when the NICs' currencies rise, the degree of yen appreciation against the dollar required to correct Japan's surpluses will increase — not diminish. The only way to lessen the required yen appreciation is for Japan to recommit itself to expansionary domestic economic policies, while the United States tries yet again to restrain its own appetite for domestic growth. With adjustment-supporting domestic policies from all G-5 members, it is reasonable to conjecture that U.S. external adjustment will require quite moderate additional effective depreciation of the dollar, perhaps no more than 10% in *real* terms, provided this were sustained. Without good domestic policies, the needed real depreciation of the dollar could be substantially greater. Some could come about through currency appreciations by Europe, the Asian NICs, and, to a modest extent, Canada. Still, given Japan's demonstrated capacity to digest appreciation, there is a presumption that the yen would have to rise by distinctly more than the average, in particular, by more than the EMS currencies.

Table 9

Japan's external assets and liabilities*

billions of dollars, end of year

	1981	1986	Est. 1987
Total assets	209	727	1090
Private sector	152	632	935
Banks' claims	85	345	545
Direct investment	25	58	80
Other	42	229	310
Memo			
Long-term securities	32	258	350
Government sector	57	95	155
International reserves	29	43	81
Long-term loans and credits	21	35	43
Other	7	17	21
Total liabilities	198	547	860
Private sector	171	494	790
Banks' liabilities	100	346	545
Direct investment	4	7	9
Other	67	141	156
Memo			
Long-term securities	44	144	160
Government sector	28	53	70
Long-term securities	20	40	55
Other	8	13	15
Net assets	11	180	230
Private sector	—19	139	145
Government sector	29	42	85

*Asset and liability figures reflect recorded capital flows as well as the valuation effects of exchange rate and security price movements. Because liabilities denominated in yen and other nondollar currencies exceed assets denominated in these currencies, the sharp appreciation of these currencies against the dollar since 1985 has resulted in smaller increases in Japan's net assets measured in dollar terms than implied by Japan's current account surpluses.

Totals may not add due to rounding.

Source: Data for 1981 and 1986 are from Bank of Japan, *Balance of Payments Monthly* and Bank for International Settlements, *International Banking Developments*. Data for 1987 are our estimates.

Japan's foreign investments

To no one's surprise — given its massive current account surpluses and corresponding net investment flows abroad — Japan has become the world's largest net creditor nation. By the end of last year, Japan's net external assets reached an estimated \$230 billion, up from \$10 billion a scant six years earlier (see Table 9). That net asset accumulation, continuing apace, already dwarfs the U.S. international investment position at its peak in 1981 when U.S. net assets reached \$141 billion.

Japan's rapid rise to the number one position — with gross external assets of nearly \$1.1 trillion, accompanied by \$860 billion in gross liabilities — reflects not only large current account surpluses but also the growing role of Japan's financial markets and institutions as international intermediaries. Liberalization and deregulation of the domestic market have enhanced this role. Additionally, a mounting volume of domestic financial activity is being channeled through international markets. This, in turn, is prompting further domestic deregulation.

All of this, as in the case of the surpluses of the OPEC of yesteryear, has focused new attention on Japanese overseas investment, both private and official. The portfolio preferences of Japanese investors are closely monitored for their impact on exchange rates and asset prices in global financial markets. Japan's responsibilities for recycling its surpluses to hard-pressed developing countries have become an issue. So, too, has the scale of Japanese foreign investment, especially as its

weight has shifted from securities to more politically sensitive areas, such as direct investment and real estate.

Banks' expanding role

Nowhere is Japan's rapidly expanding international intermediary role more evident than in its banking sector. Gross external assets and liabilities of banks in Japan (including branches of foreign banks) soared from less than \$130 billion at the end of 1984 to more than \$500 billion by September 1987 (see Table 10). Those totals include Japan's offshore market, which was launched at the end of 1986 and grew to nearly \$170 billion by the end of last September. At that time, total cross-border assets and liabilities of banks in Japan for the first time exceeded those of banks in the United States (including IBFs and the U.S. branches and subsidiaries of foreign banks).

Surprisingly, Japanese banks have not been a major channel of net capital outflows. Japanese banks' net external assets at the end of September 1987 amounted to only \$2 billion. Between December 1984 and September 1987, their cross-border activity resulted in \$9 billion in net capital inflows, and less than \$1 billion in net outflows in the first three quarters of 1987. Even so, banks in Japan have become increasingly heavy net short-term borrowers from nonresidents (mostly other banks) and equally larger net long-term lenders and investors abroad. By the end of last year, their net short-term liabilities to nonresi-

Table 10

External assets and liabilities of banks in Japan*

billions of dollars, end of period

	1985	1986	Sep 1987
Total assets	195	345	509
Foreign currency	121	207	279
Yen	74	138	231
Long-term	95	151	198
Short-term	100	195	311
Total liabilities	179	346	507
Foreign currency	130	255	334
Yen	50	91	173
Long-term	18	24	14
Short-term	161	322	493
Net assets	15	-1	2
Foreign currency	-9	-47	-56
Yen	24	46	58
Long-term	77	127	184
Short-term	-61	-128	-182

*Totals may not add due to rounding.

dents exceeded \$200 billion, closely matched by net long-term assets abroad.

In addition to term lending, Japanese banks have made sizable purchases of medium- and long-term securities, ranging from Euro-FRNs to U.S. Treasury bonds, that were funded by short-term borrowing in the international interbank market. Last year, however, it appears that Japanese banks played bond yield curves less aggressively than before, judging from the reported drop in their net purchases of foreign securities to less than \$8 billion from \$12-\$13 billion a year in 1985-86 (see Table 11). Banks also continued to increase their net yen-denominated assets last year, while increasing their net foreign-currency-denominated liabilities. By end-September 1987 their net yen assets reached the equivalent of \$58 billion, up \$42 billion from end-1984 when the dollar was close to its peak.

Shifting investment patterns

The overall level of Japanese long-term investment abroad in 1987, at \$133 billion, was little changed from the previous year (see Table 12). Increases in direct investment and loans were counterbalanced by reduced foreign security purchases. For example, buying of foreign securities in the fourth quarter amounted to only \$41 billion at an annual rate, compared with a \$117 billion rate in the first half of 1987 — reflecting investor caution in the face of a weakening dollar, volatile interest rates, and the October stock market crash. As the year progressed, an increasing portion of foreign security purchases was financed

by short-term borrowing abroad, by nonbank financial institutions, and by nonfinancial corporations as well as by banks.

For the year as a whole, net purchases of foreign bonds fell about \$20 billion — to \$73 billion. Within the reduced total, the U.S. share slipped to 50% from 55% in 1986 and a peak of 69% in 1985 (see Table 13). German bonds, U.K. gilts, and non-U.S.-dollar-denominated Eurobonds were the main beneficiaries. Despite a marked slowing in purchases after the October crash, Japanese investors last year added \$17 billion to their net holdings of foreign equities, up from \$7 billion the previous year. Close to 70% was spent on U.S. equities.

Flows of Japanese direct investment overseas amounted to some \$20 billion last year, triple the amount in 1985. Close to half may have gone into the United States as Japanese companies sought to secure their market positions in the face of yen appreciation and trade frictions. Japanese financial institutions also stepped up their investments as part of their larger role in U.S. financial markets. Some estimates place Japanese purchases of U.S. real estate at \$6-\$7 billion last year, up from \$4-\$5 billion the previous year.

Foreigners actually withdrew nearly \$4 billion in long-term capital from Japan last year (see Table 12). The main factor was nearly \$43 billion of net sales of Japanese equities — half of them in October and November. Foreigners showed increased interest in fixed-income securities, however, with acquisitions of Japanese bonds reaching nearly \$37 billion, more than double the year earlier. The bulk (\$30 billion) went into new issues by Japa-

Table 11

Japanese residents' net purchases of foreign securities by type of investor
net flows in billions of dollars*

	1985	1986	1987
All banks (banking accounts)	12.2	13.0	7.6
Trust accounts	11.8	29.8	13.1
Life insurance companies	3.9	15.0	21.0
Postal system	1.6	3.1	3.5
Other reporters	6.8	9.4	2.5
Unclassified	23.5	31.7	40.1
Total	59.8	102.0	87.8

*Yen flows converted at period average dollar-yen exchange rates.

Table 12

Japan's long-term capital flows*

billions of dollars, minus sign indicates a net outflow

	1985	1986	1987
Japanese			
investment abroad	-81.8	-132.1	-133.4
Direct investment	-6.5	-14.5	-19.5
Loans and trade credits	-13.2	-11.1	-17.3
Securities	-59.8	-102.0	-87.8
Stocks	-1.0	-7.0	-16.9
Foreign bonds	-53.5	-93.0	-72.9
Yen bonds	-5.3	-1.9	2.0
Other	-2.3	-4.5	-8.8
Foreign investment in Japan			
Direct investment	17.3	0.6	-3.7
Loans and trade credits	0.6	0.2	1.2
Securities	-0.0	-0.1	-0.2
Stocks	16.7	0.5	-6.1
Domestic bonds	-0.7	-15.8	-42.8
External bonds	4.5	-2.1	6.7
Other	12.9	18.4	30.1
Net long-term capital flows	-64.5	-131.5	-137.1

*Totals may not add due to rounding.

Table 13

Geographical distribution of net foreign bond purchases

shares of total in percent

	1985	1986	1987
United States	69	55	50
Canada	4	8	2
Euromarket*	18	25	28
United Kingdom	5	6	7
West Germany	0	1	4
Switzerland	0	0	0
Australia	2	0	2
Others	2	5	7

*Bonds listed in Luxembourg.

nese borrowers in international markets, where Japanese borrowers were by far the largest national group of issuers and accounted for 25% of gross new issue volume. Foreigners also acquired nearly \$7 billion of domestic yen bonds during the year, with net purchases exceeding \$9 billion in August through December when expectations of yen appreciation became pronounced.

Foreign direct investment flows into Japan amounted to \$1.2 billion last year — to reach a cumulative total of \$8 billion. Although a new high, the inflow was minuscule compared with foreign investment in other industrial nations. Japan has never particularly welcomed direct investment and now, of course, the yen's high value is a deterrent.

Financing the LDCs

Japan has made tentative moves to direct more of its capital flows to the developing nations. The government budgeted an 8.2% increase in foreign aid in yen terms for the fiscal year ending this month, to be followed by an 8% increase in the coming fiscal year. Yen appreciation has pulled Japan's official development assistance above that of all industrial countries except the United States when measured in dollar terms, but it remains low in relation to GNP at 0.29%. In late 1986 and 1987, Japan announced plans to recycle \$30 billion to LDCs over three years. Close to 60% was to be channeled through multilateral organizations — notably the World Bank and its International Development Association, the Asian Development Bank and its soft loan fund, and the IMF — with

perhaps half to be provided by Japanese private-sector purchases of bonds issued by those organizations. Another \$9 billion was to consist of expanded co-financing by Japan's Overseas Economic Cooperation Fund and Export-Import Bank with private lenders. The latter would be expected to put up a majority of the money. Finally, \$3 billion was slated for direct, untied loans to LDCs by the Export-Import Bank. Perhaps as much as half the \$30 billion has been committed, but only a modest portion has been distributed.

It appears increasingly certain that Japan will be called upon to play a larger role in providing LDC financial assistance, as befits the world's largest creditor. If, as also seems likely, private lenders and investors are reluctant to take LDC risk directly, the government will have to step up its own risk-taking. Clearly, the world will be watching closely to see how promises are translated into actual disbursements. The government also can expect calls for a larger share of its financing for LDCs to be on concessional terms.

Growing Importance

With Japanese investors and financial intermediaries now major players in a number of other countries' domestic markets as well as in Euromarkets, their preferences will exert far-reaching effects on exchange rates and asset prices. The international mobility of Japanese capital is growing rapidly as investors become more willing and able to shift funds among markets and trade actively within them. The impact of Japan's monetary and fiscal policies is

sure to spread quickly overseas. Similarly, changes in Japanese regulatory, tax, and accounting rules are bound to influence markets abroad in important ways. All this puts added re-

sponsibilities on Japanese policymakers. More and more, their decisions at the macro and micro levels will reverberate swiftly throughout global markets.

Statistical appendix

For key to data in tables see pages 26 and 27.

Effective exchange rates — industrial countries, 18

Real effective exchange rates — developing countries, 19

International banking market size, 19

International bond issues and bank credits, 20

Eurocurrency deposit rates, 21

International bond yields, 21

Central bank discount rates, 22

Day-to-day money rates, 22

Treasury bill rates, 23

Representative money market rates, 23

Commercial bank deposit rates, 24

Domestic government bond yields, 24

Commercial bank lending rates to prime borrowers, 25

Domestic corporate bond yields, 25

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Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1983	114.2	100.8	107.8	92.0	87.3	107.5	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.5	82.2
1984	122.3	97.3	112.9	94.2	84.4	107.3	86.7	88.1	103.6	88.9	103.9	77.4	110.5	93.9	97.8	84.3
1985	127.0	92.6	115.9	76.3	85.5	107.8	82.1	88.2	104.2	89.6	104.0	75.6	109.5	95.1	95.6	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.2	81.6
1987	94.1	89.6	164.4	58.3	87.1	122.0	82.3	79.0	110.8	95.6	114.6	73.1	123.1	102.8	85.7	80.1
1987																
March	96.0	90.5	157.9	58.3	87.3	121.7	83.3	78.1	110.3	95.7	114.1	71.1	121.4	103.7	84.8	80.6
April	94.0	90.2	165.9	59.1	87.2	121.4	82.9	78.8	110.0	95.5	114.1	71.1	123.0	103.2	85.3	80.6
May	93.5	88.4	168.2	58.7	87.1	121.7	82.1	79.8	110.1	95.6	114.3	71.4	123.8	103.6	85.8	80.4
June	94.8	88.8	164.7	59.9	87.1	121.6	81.8	79.1	110.2	95.6	114.3	71.9	122.7	103.4	86.5	80.5
July	96.0	90.0	159.1	60.0	87.2	121.4	81.6	79.2	110.2	95.4	114.2	72.5	122.2	102.4	87.2	80.4
August	95.7	90.0	162.7	59.8	86.8	121.3	81.5	78.9	110.1	95.2	114.1	73.6	122.6	101.3	87.3	80.2
September	93.9	90.3	165.4	60.5	86.9	121.5	81.7	79.6	110.1	95.3	114.4	74.6	122.7	101.0	87.4	79.7
October	93.4	90.7	165.1	58.9	86.7	121.3	81.7	80.0	115.7	95.1	114.5	75.9	122.3	101.3	87.0	79.6
November	90.0	89.3	171.2	54.3	86.7	123.6	81.2	81.5	110.9	95.6	115.9	75.6	125.4	102.5	85.2	79.2
December	87.4	89.4	178.6	55.1	87.0	123.8	81.4	81.9	110.8	95.8	115.9	75.2	126.9	103.0	83.5	78.9
1988																
January	87.4	91.0	179.8	55.1	87.2	123.4	81.3	81.2	110.7	95.6	115.8	74.8	126.5	103.0	84.6	79.1
February	88.2	92.6	179.3	56.0	86.8	122.9	81.0	80.8	110.7	95.4	115.6	75.0	125.1	102.8	85.4	79.7
January 29	87.7	91.7	180.6	55.9	87.1	123.0	81.1	80.7	110.6	95.5	115.7	74.7	126.4	102.9	85.2	79.2
February 5	88.1	92.3	179.9	55.9	87.0	122.9	81.0	80.5	110.6	95.4	115.6	75.0	125.6	103.0	85.4	79.4
12	88.3	92.6	179.1	56.0	86.8	122.9	81.0	80.6	110.7	95.3	115.6	75.0	125.2	102.7	85.2	79.6
19	88.5	92.7	178.4	56.6	86.7	122.8	80.9	80.8	110.8	95.2	115.6	75.0	124.8	102.8	85.4	79.7
26	88.0	92.6	179.7	55.6	86.6	122.9	81.0	81.1	110.7	95.4	115.6	75.1	124.8	102.8	85.5	79.9
March 4	87.7	93.4	178.4	56.7	86.6	122.9	80.9	81.3	110.8	95.4	115.6	75.3	124.1	102.8	85.6	80.0
11	86.3	93.1	179.4	56.7	86.4	123.0	80.6	83.5	110.8	95.3	115.5	75.5	124.2	102.7	84.8	79.8

Real against 15 other industrial-country currencies

1982	109.3	100.6	92.4	105.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	98.9	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.8	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.8
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	121.7	96.4	99.0	88.9	100.4	96.6	100.2	92.8	103.2	85.2	96.5	92.4	97.9	101.2	99.3	96.8
1986	100.9	93.3	122.2	78.4	103.8	103.3	102.6	87.3	106.5	84.6	101.4	93.9	105.5	107.4	96.9	96.0
1987	90.2	96.4	127.9	80.4	105.2	106.2	103.6	87.5	110.3	84.3	104.4	95.7	109.4	111.6	100.3	95.3
1987																
September	89.9	97.4	128.4	84.1	104.9	105.6	103.9	88.6	110.0	83.5	103.7	97.8	108.5	110.3	103.3	94.9
October	90.0	97.6	127.4	83.0	104.3	105.0	104.0	89.1	115.0	83.3	104.3	99.4	108.3	110.7	103.4	94.7
November	86.6	96.6	131.7	76.9	104.3	107.2	103.5	90.9	110.0	83.3	105.2	99.4	111.0	112.0	100.8	95.0
December	84.3	96.9	136.9	78.6	105.1	106.9	103.6	91.5	110.4	83.5	104.7	99.0	112.3	112.6	99.1	94.9
1988																
January	84.6	98.7	137.4	78.7	105.1	105.9	104.2	91.2	110.8	83.7	103.6	99.4	111.2	111.8	101.6	95.4
February	85.4	99.7	136.1	80.5	104.5	105.7	103.9	91.1	110.3	82.8	103.6	100.4	110.4	111.4	104.7	96.2

Real against 18 other industrial-country and 22 LDC currencies

1982	109.7	101.7	94.0	105.2	96.9	99.4	98.1	98.5	101.1	91.5	99.5	98.9	102.6	97.7	102.9	95.4
1983	114.9	104.6	100.4	102.0	94.4	100.6	100.8	93.1	102.1	88.2	99.5	89.2	105.1	100.3	101.9	91.0
1984	120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.9	91.3	99.8	99.0	100.5	95.8
1985	123.3	99.0	104.2	89.6	99.9	95.7	99.7	92.2	102.8	84.4	94.7	93.1	97.6	101.1	99.7	96.7
1986	106.6	94.4	127.1	80.4	104.4	104.4	104.0	88.1	107.3	85.1	101.3	96.5	107.4	107.9	97.8	96.7
1987	96.5	96.5	131.9	82.1	106.4	108.5	106.2	89.1	111.8	85.5	105.4	99.3	112.3	112.5	101.4	96.6
1987																
September	95.7	97.4	132.2	65.4	105.9	107.7	106.2	90.0	111.3	84.5	104.4	101.2	111.2	111.1	104.2	96.0
October	95.6	97.6	131.0	84.0	105.3	107.1	106.3	90.6	116.4	84.3	105.0	102.8	111.0	111.5	104.3	95.9
November	92.4	96.3	134.9	78.4	105.5	109.7	106.2	92.7	111.6	84.6	106.3	103.1	114.0	112.9	101.8	96.3
December	90.6	96.4	140.0	80.1	106.4	109.5	106.4	93.4	112.1	85.0	105.9	102.9	115.4	113.5	100.1	96.2
1988																
January	90.7	98.1	140.6	80.2	106.2	108.3	106.9	93.0	112.4	85.0	104.7	103.1	114.1	112.7	102.7	96.7
February	91.6	99.3	142.2	81.9	105.9	108.2	107.0	93.3	111.9	84.1	105.0	104.4	113.4	112.6	105.9	97.7

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1982	77.0	113.0	97.3	105.9	82.7	104.6	110.2	101.4	111.7	101.9	105.6	106.7	100.8	96.6	108.7	96.1
1983	71.6	86.0	89.3	104.9	79.0	98.4	117.3	95.0	96.2	97.6	113.9	96.1	101.8	94.6	120.8	94.2
1984	80.2	85.7	90.1	99.6	91.9	105.8	85.9	99.5	96.0	96.5	119.6	107.9	102.5	97.1	119.5	89.6
1985	71.0	84.8	79.5	85.3	90.4	96.0	92.7	103.3	93.7	88.7	115.7	114.1	95.2	94.3	106.5	88.8
1986	60.9	74.3	68.5	67.5	65.0	93.5	85.5	93.4	70.8	75.4	94.1	89.9	79.9	88.4	100.8	70.7
1987	53.4	73.5	65.1	63.1	66.7	121.8	60.0	89.2	54.2	74.7	88.3	86.4	73.6	92.5	97.2	62.6
1987																
March	53.2	71.1	66.5	64.7	61.9	112.5	56.8	89.1	54.5	73.4	89.7	84.2	73.9	88.9	94.5	64.0
April	53.0	75.2	65.8	63.4	62.0	115.1	57.5	88.6	53.1	73.1	90.3	83.5	72.7	89.4	95.0	63.5
May	53.0	75.5	65.9	62.5	62.9	117.8	59.7	89.7	53.3	73.7	89.7	83.7	73.0	91.9	94.9	63.1
June	53.5	75.3	65.5	62.7	65.0	121.3	61.7	90.6	54.2	75.7	89.6	86.1	73.5	94.6	96.8	62.9
July	53.4	72.9	65.7	63.9	68.3	131.0	63.6	90.0	55.5	77.3	89.5	88.5	74.0	95.4	98.6	63.0
August	54.6	71.1	66.1	63.5	69.6	140.2	64.3	89.6	55.3	77.0	89.3	88.3	74.3	96.8	99.7	63.2
September	53.5	70.9	65.3	62.7	71.5	146.9	64.5	90.3	54.3	75.9	88.5	87.2	73.7	95.9	99.8	61.8
October	53.9	73.2	64.3	62.1	73.6	145.5	64.0	90.0	54.6	75.9	87.2	89.3	73.1	95.1	100.5	60.8
November	49.3	73.9	61.7	60.8	73.6	127.2	63.3	89.2	53.1	73.6	85.0	87.5	72.2	92.2	99.3	58.0
December	49.1	74.7	61.4	60.3	67.3	97.3	63.2	86.6	51.4	73.1	83.4	86.2	72.5	93.2	99.2	62.5
1988																
January	49.5	77.2	58.2	61.8	72.7	93.0	66.3	84.9	51.3	74.1	82.0	86.5	71.1	93.6	100.7	63.1
February	51.2	76.0	59.4	61.2	73.8	105.0	72.4	86.5	52.7	77.5	82.1	86.5	71.8	94.5	103.8	57.0

International banking market size

at end of period, billions of dollars

	1982	1983	1984	1985	1986			1987	
					Jun	Sep	Dec	Mar	Jun
Gross claims									
Eurocurrencies, on residents and nonresidents	2 146	2 253	2 359	2 833	3 040	3 347	3 560	3 811	3 942
On nonbanks	634	665	694	822	875	914	938	995	1 175
On banks	1 512	1 588	1 665	2 011	2 165	2 433	2 622	2 817	2 767
In dollars	1 694	1 797	1 894	2 101	2 166	2 381	2 534	2 602	2 753
In other currencies	452	456	465	732	874	966	1 025	1 209	1 189
Domestic currencies, on nonresidents	398	402	402	506	578	633	672	721	757
On nonbanks	132	140	142	187	201	211	209	229	236
On banks	266	262	260	319	377	422	463	492	521
In dollars	211	221	215	215	210	219	227	206	215
In other currencies	187	181	187	291	368	414	445	515	542
Total	2 544	2 655	2 761	3 339	3 618	3 980	4 232	4 532	4 699
On nonbanks	766	805	836	1 009	1 076	1 125	1 147	1 224	1 411
On banks	1 778	1 850	1 925	2 330	2 542	2 855	3 085	3 309	3 288
In dollars	1 905	2 018	2 109	2 316	2 376	2 600	2 761	2 808	2 968
In other currencies	639	637	652	1 023	1 242	1 380	1 470	1 724	1 731
Gross liabilities									
Eurocurrencies, to residents and nonresidents	2 168	2 278	2 386	2 846	3 059	3 384	3 579	3 851	3 999
To nonbanks	432	479	497	585	632	660	685	740	768
To official monetary institutions	91	88	96	112	109	110	109	125	139
To other banks	1 645	1 711	1 793	2 149	2 318	2 614	2 786	2 986	3 085
In dollars	1 741	1 846	1 950	2 147	2 204	2 425	2 553	2 648	2 785
In other currencies	427	432	436	699	855	959	1 026	1 203	1 214
Domestic currencies, to nonresidents	250	260	280	377	418	464	494	556	580
To nonbanks	70	73	80	114	121	121	116	134	144
To banks	180	187	200	263	297	343	377	422	436
In dollars	116	135	146	169	171	191	192	192	197
In other currencies	134	125	134	208	247	273	302	364	383
Total	2 418	2 538	2 666	3 223	3 477	3 848	4 073	4 407	4 579
To nonbanks	502	552	577	699	753	781	801	874	912
To banks and official institutions	1 916	1 986	2 089	2 524	2 724	3 067	3 272	3 533	3 660
In dollars	1 857	1 981	2 096	2 316	2 375	2 616	2 745	2 840	2 982
In other currencies	561	557	570	907	1 102	1 232	1 328	1 567	1 597
Net market size	1 285	1 382	1 430	1 676	1 800	1 912	1 979	2 083	2 170

International bond issues and bank credits

millions of dollars

	1985	1986	1987	1987	1988	Jan		
				Nov	Dec	Jan	1988	1987
By country of borrower								
Industrial countries	226 711	273 653	248 718	28 295	19 581	15 667	15 667	21 575
Australia	14 407	19 251	11 349	162	823	427	427	1 122
Austria	2 435	3 821	4 695	980	186	1 494	1 494	657
Belgium	3 269	5 042	4 443	682	32	224	224	697
Canada	17 184	23 752	10 161	921	866	1 078	1 078	957
Denmark	3 589	9 813	4 774	413	167	255	255	1 647
Finland	1 846	3 578	3 517	360	303	90	90	504
France	18 773	20 027	16 022	2 791	2 697	3 027	3 027	1 110
Germany	3 452	12 589	10 922	298	509	286	286	2 162
Greece	1 587	1 361	1 462	—	395	—	—	—
Ireland	1 881	3 281	2 195	247	110	408	408	—
Italy	11 033	12 723	13 421	2 902	2 060	445	445	686
Japan	21 269	35 283	45 591	1 767	588	2 470	2 470	2 206
Netherlands	2 299	3 215	5 069	221	213	88	88	672
New Zealand	2 707	7 818	5 942	109	748	—	—	789
Norway	3 905	6 750	5 917	141	313	1 189	1 189	782
Portugal	2 382	2 503	2 159	61	150	161	161	215
South Africa	825	—	—	—	—	—	—	—
Spain	3 913	7 083	1 794	59	372	44	44	55
Sweden	9 890	8 000	5 766	467	359	740	740	595
United Kingdom	25 424	24 109	33 225	2 389	3 853	960	960	3 776
United States	69 193	55 703	45 412	4 200	4 690	2 228	2 228	2 084
Other*	5 447	7 950	14 880	9 125	147	53	53	859
Developing countries	32 139	23 994	27 658	1 387	2 168	1 488	1 488	565
Latin American countries	8 115	3 468	10 389	54	143	1 029	1 029	—
Argentina	3 700	17	2 110	—	—	—	—	—
Brazil	—	350	—	—	—	—	—	—
Chile	1 085	—	—	—	—	—	—	—
Colombia	1 052	240	137	—	87	1 000	1 000	—
Mexico	109	313	7 700	—	—	—	—	—
Venezuela	48	—	30	—	—	—	—	—
Other**	2 121	2 548	412	54	57	29	29	—
Asian countries	18 410	14 474	13 147	1 156	1 311	159	159	465
India	818	1 795	2 156	—	334	—	—	25
Indonesia	451	1 343	1 745	550	300	—	—	16
Korea	5 898	3 251	2 522	26	125	159	159	25
Malaysia	2 219	1 204	554	126	—	—	—	20
Philippines	925	—	—	—	—	—	—	—
Thailand	1 497	1 676	463	55	—	—	—	—
Other	6 602	5 204	5 706	400	551	—	—	380
Middle Eastern and African countries	5 613	6 051	4 122	177	714	299	299	100
Algeria	1 450	1 344	344	—	—	180	180	—
Nigeria	—	—	—	—	—	—	—	—
Turkey	1 203	2 754	2 831	107	619	119	119	—
Other	2 960	1 952	947	70	95	—	—	100
Eastern European countries	5 236	3 891	3 564	102	132	98	98	24
Hungary	1 577	1 315	1 951	—	—	—	—	—
Soviet Union	1 489	1 821	864	80	50	73	73	24
Other***	2 169	755	749	22	82	25	25	—
International organizations****	20 635	19 896	20 013	2 760	773	1 010	1 010	2 261
By type of instrument and currency								
International bond issues	167 756	228 106	177 291	12 907	7 512	12 248	12 248	17 998
Eurobonds	136 731	188 747	140 481	8 712	4 500	8 881	8 881	14 707
U.S. dollar	97 782	119 096	56 727	750	875	3 830	3 830	5 365
German mark	9 491	17 127	15 518	1 193	1 750	1 636	1 636	2 955
British pound	5 766	10 585	14 997	1 664	464	887	887	1 069
Japanese yen	6 539	18 516	23 116	3 880	567	1 154	1 154	1 603
European composite units	7 038	7 057	7 423	805	137	553	553	1 909
Other	10 114	16 366	22 699	421	707	820	820	1 806
Foreign bonds	31 025	39 359	36 811	4 195	3 012	3 367	3 367	3 291
U.S. dollar	4 655	6 782	5 911	950	1 050	450	450	450
German mark	1 741	—	—	—	—	—	—	—
British pound	958	394	—	—	—	—	—	—
Swiss franc	14 954	23 213	23 976	2 265	1 588	2 789	2 789	2 338
Japanese yen	6 379	5 223	3 068	591	57	—	—	246
Other	2 339	3 747	3 856	388	317	128	128	257
International bank credits	116 764	93 219	122 663	19 638	15 141	6 015	6 015	6 427
Eurocurrency credits	110 317	84 158	111 715	18 756	14 849	5 985	5 985	5 842
Foreign credits	6 647	9 061	10 947	882	292	29	29	585
Total	284 720	321 435	299 953	32 545	22 654	18 262	18 262	24 425

*Includes multinational organizations.

**Includes unallocated.

***Includes COMECON institutions.

****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1984	1985	1986	1987					1988	
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Eurodollar										
overnight	8.63	12.25	22.00	6.81	8.25	6.75	6.62	6.75	6.69	6.69
one month	8.38	8.00	6.50	7.12	7.75	7.06	8.25	7.06	6.69	6.69
three months	8.63	7.88	6.25	7.19	8.37	7.62	7.94	7.37	6.81	6.69
six months	9.13	7.88	6.12	7.44	8.50	7.69	7.94	7.50	6.87	6.75
twelve months	9.81	7.94	6.12	7.94	9.00	8.00	8.19	7.81	7.25	7.12
Euro-Canadian dollar										
one month	9.88	9.00	8.00	9.12	9.19	7.69	8.56	8.00	8.50	8.25
three months	10.81	9.00	8.12	9.25	9.69	8.19	9.00	8.12	8.37	8.37
six months	10.06	9.00	8.19	9.62	10.19	8.50	9.12	8.44	8.50	8.37
twelve months	10.44	9.00	8.31	10.00	10.69	8.87	9.44	8.87	8.75	8.75
Euro-French franc										
one month	10.69	12.50	10.12	7.31	7.81	9.00	9.37	8.75	7.50	7.25
three months	10.69	13.00	10.37	8.19	8.31	9.00	9.37	9.00	8.00	7.75
six months	11.00	13.13	9.75	8.81	8.69	9.00	9.37	9.25	8.25	8.19
twelve months	11.38	12.25	8.75	9.31	9.19	9.00	9.37	9.25	8.50	8.50
Euromark										
one month	5.50	4.75	5.12	4.00	4.12	3.69	3.94	3.25	3.19	3.31
three months	5.50	4.75	4.87	4.06	4.56	4.12	3.94	3.37	3.25	3.31
six months	5.56	4.75	4.81	4.31	4.75	4.25	4.06	3.50	3.31	3.37
twelve months	5.56	4.81	4.81	4.44	4.81	4.44	4.12	3.75	3.56	3.50
Euro-Dutch guilder										
one month	5.69	5.75	6.31	5.19	5.25	5.12	4.81	4.50	3.94	3.94
three months	5.75	5.75	6.00	5.31	5.56	5.25	4.94	4.62	4.00	4.00
six months	5.81	5.81	5.87	5.37	5.62	5.37	5.00	4.69	4.12	4.06
twelve months	5.94	5.88	5.81	5.50	5.75	5.44	5.12	4.81	4.37	4.12
Euro-Swiss franc										
one month	4.44	3.88	3.94	3.94	3.69	2.87	4.94	2.50	1.25	1.37
three months	4.56	4.00	3.94	3.75	4.37	3.87	4.06	3.00	1.81	1.69
six months	4.63	4.00	3.87	4.00	4.37	3.87	4.06	3.19	2.37	2.12
twelve months	4.69	4.06	3.87	4.06	4.37	3.87	4.06	3.25	2.87	2.69
Eurosterling										
one month	9.50	11.69	11.12	10.00	10.19	9.37	9.00	8.56	8.44	9.00
three months	9.88	11.81	11.12	10.50	10.37	9.44	8.94	8.81	8.69	9.31
six months	10.00	11.81	11.06	10.75	10.50	9.44	9.00	9.00	8.87	9.50
twelve months	10.19	11.69	11.06	11.00	10.69	9.50	9.12	9.31	9.25	9.75
Euroyen										
one month	6.19	7.13	4.56	4.00	4.37	4.37	4.75	4.00	4.06	4.37
three months	6.19	6.56	4.50	4.06	5.00	4.50	4.44	4.12	4.12	4.19
six months	6.13	6.50	4.37	4.19	5.19	4.50	4.37	4.12	4.12	4.19
twelve months	6.13	6.38	4.31	4.31	5.25	4.62	4.44	4.12	4.19	4.19
European currency unit										
one month	9.25	9.63	8.56	6.75	6.87	7.19	6.94	6.62	5.87	6.12
three months	9.38	9.63	8.44	7.00	7.37	7.44	7.00	6.75	6.19	6.31
six months	9.50	9.63	8.06	7.25	7.56	7.44	6.94	6.87	6.37	6.44
twelve months	9.63	9.63	7.31	7.37	7.68	7.62	7.06	7.00	6.62	6.62

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1985	1986	1987							1988
	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
United States companies										
<i>Eurodollar</i>	9.68	8.67	10.11	9.82	9.99	10.95	10.41	10.21	10.31	10.24
<i>Euromark</i>	6.73	6.62	6.65	7.04	6.82	6.87	7.04	6.74	6.69	6.54
<i>Swiss franc</i>	5.49	5.70	5.50	5.57	5.43	5.50	5.83	5.56	5.71	5.57
European governments										
<i>Eurodollar</i>	10.52	9.91	11.14	11.22	11.41	11.81	11.63	11.63	11.64	11.48
<i>Euromark</i>	7.03	6.77	6.36	6.55	6.65	6.76	6.61	6.61	6.21	6.23
<i>Swiss franc</i>	4.91	4.51	4.33	4.33	4.38	4.39	4.54	4.15	4.11	4.05
<i>European currency unit</i>	10.23	10.20	10.51	10.40	10.43	10.46	11.10	11.06	10.84	10.85

Central bank discount rates

at or near end of month

	1984	1985	1986	1987			1988		Current	
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar 18 1988	effective since
United States	8.00	7.50	5.50	6.00	6.00	6.00	6.00	6.00	6.00	Sep 24, 87
Canada	10.09	9.49	8.47	8.09	8.56	8.66	8.62	8.57	8.70	Dec 3, 87
Austria	4.50	4.00	4.00	3.50	3.50	3.00	3.00	3.00	3.00	Dec 3, 87
Belgium	11.00	9.75	8.00	7.25	7.25	7.00	7.00	6.75	6.50	Mar 3, 88
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.50	4.00	3.50	3.00	3.00	2.50	2.50	2.50	2.50	Dec 3, 87
Ireland	14.00	10.25	13.25	9.75	9.75	9.25	9.25	9.25	9.25	Dec, 87
Italy	16.50	15.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	Aug 28, 87
Netherlands	5.00	5.00	4.50	4.50	4.00	3.75	3.75	3.25	3.25	Feb 5, 88
Portugal	25.00	19.00	16.00	14.50	14.50	14.50	14.50	14.50	14.50	Oct, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	3.50	3.00	2.50	2.50	2.50	2.50	Dec 4, 87
United Kingdom	9.38	11.31	10.81	9.37	8.87	8.37	8.37	8.87	8.37	Mar 17, 88
Japan	5.00	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	13.50	19.80	24.60	21.90	18.45	18.55	18.05	19.40	17.10	Mar 18, 88
South Africa	21.75	13.50	10.00	10.00	10.00	10.00	10.00	10.00	10.50	Mar 10, 88
Argentina*	18.19	5.00	11.19	17.00	17.00	17.59	15.71	16.71	16.71	Feb, 88
Korea	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	12.11	11.50	9.64	9.13	9.19	9.25	n.a.	n.a.	n.a.	
Singapore	6.75	5.00	5.00	5.00	5.00	5.00	5.00	3.50	3.50	Feb, 88
Thailand	10.97	11.00	8.00	n.a.	n.a.	n.a.	n.a.	n.a.	8.00	Sep 1, 86
Venezuela	11.00	12.94	12.79	12.93	12.98	n.a.	n.a.	n.a.	12.98	Nov, 87

*Percent per month.

Day-to-day money rates

monthly averages

	1984	1985	1986	1987			1988			
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	
United States	8.38	8.27	6.71	6.58	6.73	7.21	7.29	6.69	6.47	6.60
Canada	10.50	9.23	8.28	8.53	8.72	8.80	8.41	8.16	8.40	8.41
Austria	7.63	7.25	7.62	4.10	4.10	4.12	4.60	4.20	4.10	4.50
Belgium	9.12	6.60	5.09	5.62	4.82	5.24	4.61	5.44	5.09	6.60
Finland	15.07	11.96	11.97	11.00	11.00	11.00	11.00	11.00	11.00	11.00
France	10.95	9.02	7.80	7.46	7.41	7.36	7.69	n.a.	8.23	n.a.
Germany	5.62	4.64	5.00	3.73	3.78	3.71	3.74	3.55	3.19	3.13
Ireland	14.50	9.62	13.00	9.00	8.25	8.75	6.50	8.50	7.50	8.00
Italy	17.25	14.75	11.42	10.95	11.09	11.70	10.90	10.25	10.25	n.a.
Netherlands	5.60	5.75	6.19	5.19	4.84	4.75	5.19	4.44	4.25	4.12
Norway	12.50	12.50	14.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	12.18	9.92	11.76	18.09	17.68	17.45	16.22	14.60	14.02	13.20
Sweden	11.88	11.83	8.89	8.61	8.46	8.57	8.42	8.97	8.43	8.75
Switzerland	1.50	2.00	1.12	2.00	1.30	1.37	1.25	1.50	0.50	1.00
United Kingdom	6.31	9.72	9.19	8.78	9.12	9.72	9.68	9.13	7.60	8.26
Australia	10.98	18.37	15.40	12.08	11.90	11.58	12.50	11.90	10.75	10.70
Japan	8.41	8.02	4.18	3.17	3.19	3.39	3.37	3.39	3.81	3.54
South Africa	21.13	12.50	8.50	8.56	8.56	8.45	8.45	8.45	8.82	9.56
Argentina*	17.75	4.50	7.00	9.00	11.17	12.50	9.00	9.80	14.90	16.40
Brazil	272.02	352.23	83.05	n.a.	153.78	150.10	150.10	329.33	n.a.	n.a.
Hong Kong	6.80	6.10	3.90	5.33	5.54	3.67	4.92	1.90	0.56	0.58
Korea	10.00	8.80	9.00	8.90	10.00	9.50	10.00	8.70	8.60	n.a.
Philippines	15.22	15.03	9.92	9.17	8.46	16.50	12.94	n.a.	n.a.	n.a.
Singapore	6.01	4.53	3.51	3.33	2.91	2.52	3.55	3.40	2.57	2.73
Taiwan	8.07	4.50	3.00	5.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1984	1985	1986	1987						1988	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	7.99	7.25	5.73	6.11	6.41	6.82	5.41	5.50	5.90	5.81	5.75
Canada	9.84	9.24	8.22	8.97	8.99	9.32	7.84	8.31	8.41	8.37	8.33
Belgium	10.90	9.89	7.50	6.74	6.74	6.74	7.25	6.95	6.84	6.44	6.24
Ireland	15.10	11.15	13.60	9.56	9.93	8.93	8.80	9.10	8.69	8.34	8.76
Italy	14.69	13.10	10.00	10.53	10.92	10.63	10.54	9.95	n.a.	n.a.	n.a.
Netherlands	5.88	5.69	6.37	5.25	5.62	5.62	5.50	5.25	4.95	4.75	4.25
Spain	12.27	9.52	8.37	8.61	7.10	6.73	8.23	6.78	6.67	5.56	5.83
Sweden	11.83	12.49	9.20	9.11	9.25	9.30	9.49	9.20	9.05	9.20	9.32
United Kingdom	9.33	11.49	10.79	9.14	10.12	10.02	9.07	8.67	8.38	8.38	8.81
Australia	12.27	19.40	14.91	12.04	11.91	11.09	10.47	10.34	10.06	9.92	n.a.
Japan	4.91	4.91	2.89	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	13.50	17.62	19.69	n.t.	19.38	n.t.	n.t.	n.t.	18.25	16.32	15.69
South Africa	21.94	12.99	8.84	8.74	8.70	8.72	8.68	8.64	8.85	9.49	9.55
Brazil	273.03	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	48.67	72.98	104.03	96.86	95.95	95.47	96.43	110.67	133.04	152.31	n.a.
Philippines	47.14	16.45	9.55	10.91	11.67	12.60	12.97	13.18	n.a.	n.a.	n.a.
Singapore	2.91	2.94	2.10	2.97	3.01	3.26	3.57	3.69	3.23	2.92	2.97

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1984	1985	1986	1987						1988	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.34	8.01	8.04	6.98	7.10	7.94	7.58	7.80	7.21	6.90	6.77
Canada	10.00	9.40	8.35	9.20	9.15	9.25	8.50	8.70	8.90	8.65	8.55
Belgium	10.85	9.89	7.60	6.84	6.79	6.79	7.35	7.15	6.95	6.54	6.34
France	10.69	9.12	8.37	7.87	7.81	7.87	8.25	8.62	8.56	n.a.	n.a.
Germany	5.75	4.80	4.85	3.85	3.85	4.55	4.10	3.80	3.65	3.23	3.28
Ireland	15.13	12.00	14.06	9.87	9.94	9.94	9.25	9.19	8.81	8.62	8.94
Italy	16.88	15.13	11.37	11.12	12.37	12.37	12.00	11.62	11.50	n.a.	n.a.
Netherlands	5.75	5.75	6.19	5.37	5.25	5.38	5.25	4.94	4.56	4.32	4.06
Portugal	24.57	20.71	16.07	15.07	15.09	14.79	14.66	14.19	n.a.	n.a.	n.a.
Spain	12.21	10.51	11.79	17.56	16.83	16.86	15.84	14.44	13.59	12.30	12.01
Switzerland	5.00	4.75	4.50	3.94	3.75	4.25	4.06	4.06	3.56	1.69	1.81
United Kingdom	9.88	12.75	11.25	9.44	10.31	10.19	9.19	8.87	8.94	8.62	9.25
Australia	12.90	19.75	15.10	12.40	12.50	11.20	12.15	12.00	11.25	10.80	10.78
Japan	6.33	7.03	4.34	3.74	3.71	3.84	3.88	3.90	3.90	3.85	n.a.
New Zealand	15.00	20.00	24.25	18.70	18.30	18.90	20.30	16.90	16.70	17.30	n.a.
South Africa	22.78	13.35	8.55	8.80	8.85	8.90	8.90	8.50	8.90	9.60	10.25
Chile	20.68	22.42	19.56	18.16	25.34	26.82	31.37	34.49	15.25	11.35	10.69
Hong Kong	8.25	6.50	4.62	6.19	6.56	6.37	6.19	4.06	1.50	3.00	3.87
Indonesia	19.00	15.00	19.50	20.75	20.50	18.75	17.37	17.50	17.50	17.00	18.50
Korea	8.00	8.00	8.00	7.50	7.50	7.50	7.50	7.50	7.50	n.a.	n.a.
Malaysia	10.30	8.20	6.00	2.75	2.76	2.66	2.96	3.44	n.a.	n.a.	n.a.
Philippines	33.21	14.61	8.31	9.98	10.31	11.15	11.81	n.a.	n.a.	n.a.	n.a.
Singapore	7.00	5.88	3.94	4.13	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taiwan	7.85	4.10	3.87	4.72	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Commercial bank deposit rates

at or near end of month

	1984	1985	1986	1987						1988	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.35	7.75	6.30	6.77	6.95	8.05	7.40	5.41	7.10	5.88	6.61
Canada	10.05	9.40	8.15	9.25	9.20	9.60	8.55	8.75	8.40	8.50	8.50
Austria	7.50	6.50	5.50	4.25	4.30	4.60	4.75	4.45	4.25	4.40	4.05
Belgium	10.83	9.63	7.44	6.19	6.52	6.56	6.00	6.66	6.69	6.31	6.25
Denmark	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.	n.a.
Finland	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	n.a.	n.a.	n.a.
Germany	5.25	4.40	4.80	3.75	3.75	3.90	3.90	3.70	3.50	3.20	3.20
Ireland	14.63	11.87	13.75	9.62	9.87	9.00	8.62	9.12	8.62	8.50	8.75
Italy	11.64	13.21	10.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	5.69	5.81	6.06	5.25	5.25	5.50	5.12	4.81	4.50	4.21	3.94
Norway	12.75	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	28.00	20.00	15.00	14.50	14.50	14.50	14.00	14.00	14.00	n.a.	n.a.
Spain	11.64	9.64	8.67	9.04	9.21	9.02	9.11	9.32	9.48	9.39	n.a.
Sweden	11.45	12.18	9.93	9.25	9.70	9.70	9.70	9.70	9.45	9.55	9.55
Switzerland	4.50	4.50	4.25	3.69	3.50	4.00	3.81	3.81	3.37	1.44	1.56
United Kingdom	9.88	11.75	11.19	9.31	10.12	10.00	9.12	8.81	8.81	8.75	9.25
Australia	12.75	18.80	15.56	13.41	12.67	12.14	11.25	12.28	11.70	11.20	n.a.
Japan	6.38	7.04	4.55	4.09	4.10	4.45	4.63	4.46	4.42	4.33	4.41
New Zealand	15.25	19.98	23.50	18.35	18.40	18.75	18.95	17.90	17.50	n.a.	n.a.
South Africa	22.88	13.20	8.65	9.00	9.00	9.35	9.35	9.35	9.75	10.50	11.30
Argentina*	31.23	5.40	8.41	10.24	12.20	18.20	9.10	8.92	14.00	15.12	14.30
Brazil	27.00	18.00	220.00	n.a.	11.00	11.00	14.00	15.00	17.50	n.a.	n.a.
Chile	20.68	23.60	20.98	17.74	25.05	26.13	30.30	31.53	14.84	11.75	9.25
Hong Kong	8.25	6.50	4.62	6.19	6.56	6.37	6.19	4.06	1.50	3.00	3.87
Korea	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.	n.a.
Malaysia	9.58	7.00	6.33	6.16	6.13	6.16	6.11	6.04	n.a.	n.a.	n.a.
Mexico	47.45	72.90	94.30	94.30	94.20	94.20	94.20	94.20	120.35	119.47	n.a.
Philippines	31.01	12.34	7.75	7.35	7.35	8.79	8.56	9.50	n.a.	n.a.	n.a.
Singapore	6.13	5.26	3.63	4.25	3.98	3.61	3.50	3.51	3.28	3.11	3.29
Taiwan	6.50	5.25	4.00	4.00	4.00	4.00	4.00	4.00	n.a.	n.a.	n.a.
Thailand	13.00	10.50	6.75	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	12.50	8.00	8.00	8.97	8.95	8.94	8.92	8.95	8.95	n.a.	n.a.

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987						1988	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	11.61	9.49	7.79	8.88	9.18	9.80	9.04	9.10	8.95	8.56	8.43
Canada	11.66	10.04	9.23	10.23	10.44	11.16	10.21	10.50	10.34	9.74	9.79
Austria	8.03	7.61	7.33	6.68	6.83	7.00	7.26	7.13	6.89	6.83	6.80
Belgium	11.56	9.60	7.70	7.64	7.93	8.25	8.32	7.98	8.04	7.95	7.67
Denmark	14.60	9.67	11.04	11.57	13.02	12.33	12.56	11.84	12.05	11.18	n.a.
Finland	10.73	10.58	7.80	7.86	7.87	7.83	7.77	7.64	7.67	7.40	7.40
France	12.70	11.33	9.89	10.39	10.60	11.06	10.95	10.46	10.57	n.a.	n.a.
Germany	7.17	6.57	6.25	6.39	6.59	6.86	6.62	6.46	6.51	6.50	6.32
Ireland	14.90	11.84	12.97	11.81	11.92	11.30	11.05	10.23	10.45	10.61	10.41
Italy	14.52	13.66	10.05	10.90	11.30	11.30	11.41	11.25	10.50	n.a.	n.a.
Netherlands	7.72	6.96	6.40	6.43	6.66	6.81	7.05	6.37	6.32	6.17	5.99
Norway	12.00	13.00	13.24	13.00	12.97	12.78	12.69	n.a.	n.a.	n.a.	n.a.
Portugal	22.23	16.64	14.94	15.10	15.20	15.50	15.30	15.60	n.a.	n.a.	n.a.
Spain	13.93	12.52	10.36	13.56	13.75	14.26	14.24	13.34	13.14	12.48	11.91
Sweden	12.04	12.11	10.66	11.79	11.92	12.02	11.42	11.51	11.39	11.30	10.96
Switzerland	4.60	4.42	4.05	3.98	4.06	4.33	4.12	3.86	3.95	4.07	4.39
United Kingdom	10.25	10.35	10.17	9.69	9.93	9.85	9.22	9.23	9.47	9.32	9.15
Australia	13.50	14.85	13.40	12.95	12.95	12.50	13.65	13.30	12.85	12.39	12.26
Japan	6.47	5.92	4.61	4.44	4.43	5.72	4.58	5.00	4.88	4.23	4.36
New Zealand	16.90	17.00	16.00	15.80	15.65	15.55	15.70	14.90	14.30	14.25	n.a.
South Africa	16.55	18.09	15.06	15.18	14.98	15.12	15.44	15.30	15.70	16.80	16.52
Philippines	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Venezuela	14.00	12.00	12.00	12.00	12.00	12.50	12.50	12.50	12.50	n.a.	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1984	1985	1986	1987						1988	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	10.75	9.50	7.50	8.25	8.25	8.75	9.00	8.75	8.75	8.50	8.50
Canada	11.25	10.00	9.75	9.50	10.00	10.00	9.75	9.75	9.75	9.75	9.75
Austria	9.25	9.00	9.00	8.50	8.50	8.50	8.50	8.50	8.25	8.25	8.25
Belgium	14.00	11.50	9.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.50
Denmark	10.50	8.50	8.00	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Finland	10.68	10.37	8.81	8.93	8.94	8.95	8.97	9.02	8.99	9.03	n.a.
France	12.00	10.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.25	6.75	6.25	6.25	6.25	6.25	6.25	6.25	6.00	6.00
Ireland	15.75	12.50	15.75	12.75	12.75	12.00	12.00	12.00	11.50	11.50	11.50
Italy	18.00	15.88	13.00	12.50	13.00	13.00	13.00	13.00	13.00	12.50	12.62
Netherlands	6.25	6.25	7.12	5.62	5.62	5.62	5.50	5.25	4.87	4.62	4.25
Norway	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	29.00	22.50	17.50	19.50	19.50	19.50	18.50	18.50	18.50	n.a.	n.a.
Spain	15.84	14.75	14.22	16.62	16.61	16.69	16.48	16.38	16.34	16.10	15.76
Sweden	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	5.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	9.50	11.50	11.00	9.00	10.00	10.00	9.50	9.00	8.50	8.50	9.00
Australia	14.00	21.00	18.50	15.75	15.25	14.45	14.00	13.75	13.50	13.00	n.a.
Japan	5.50	5.50	3.75	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
New Zealand	14.00	21.00	18.50	21.00	19.00	20.00	19.50	18.50	17.25	n.a.	n.a.
South Africa	24.00	16.50	12.00	12.50	12.50	12.50	12.50	12.50	13.00	13.00	13.00
Argentina*	32.05	7.30	11.30	13.20	15.90	20.00	9.80	9.98	14.80	15.80	15.00
Brazil**	31.00	19.00	250.00	n.a.	15.00	15.00	18.00	18.00	19.50	n.a.	n.a.
Chile	60.82	33.34	29.13	27.11	31.66	33.12	37.33	40.20	30.99	21.22	20.51
Hong Kong	11.00	7.00	6.50	7.50	7.50	7.50	6.50	6.00	5.50	5.25	6.00
Indonesia	23.50	18.75	19.75	26.00	23.00	22.00	21.00	20.50	20.50	20.50	20.50
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	n.a.	n.a.
Malaysia	12.00	10.50	10.00	7.68	7.68	7.47	7.47	7.47	n.a.	n.a.	n.a.
Mexico	47.54	65.66	95.33	92.91	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	44.00	15.00	10.50	9.50	9.50	9.87	10.65	11.50	n.a.	n.a.	n.a.
Singapore	9.40	7.20	6.10	6.10	6.10	6.10	6.10	6.10	6.10	5.98	5.93
Taiwan	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	n.a.	n.a.
Venezuela	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	n.a.	n.a.	n.a.

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987						1988	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	12.25	10.15	8.88	9.90	10.15	10.75	10.25	10.30	9.90	9.60	9.45
Canada	12.42	10.74	10.18	11.05	11.74	11.81	11.22	11.32	10.95	10.37	9.96
France	12.94	11.76	10.18	10.37	10.77	11.07	11.28	10.96	n.a.	n.a.	n.a.
Germany	7.20	6.90	6.50	6.60	6.70	6.95	6.72	6.57	6.63	n.a.	n.a.
Netherlands	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	12.75	14.00	14.94	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	18.32	14.92	13.40	16.94	17.52	17.39	17.93	17.08	16.15	15.79	14.68
Sweden	12.33	13.25	11.99	12.68	12.89	n.a.	12.78	12.36	12.31	12.20	11.83
Switzerland	5.09	4.93	4.72	4.53	4.55	4.72	4.87	4.65	4.60	4.50	4.39
United Kingdom	11.64	11.47	11.71	10.55	11.41	11.43	11.09	10.59	11.03	10.76	10.65
Japan	7.10	6.79	5.93	5.10	6.00	6.89	6.27	5.90	5.45	5.28	5.21
Korea	15.00	13.60	12.80	12.70	12.60	12.80	12.80	12.80	12.80	12.80	n.a.
Venezuela	18.00	17.00	17.00	17.00	18.00	18.00	18.00	18.00	18.00	n.a.	n.a.

Key to data in tables

I. International markets

Data on the *international banking market* size are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countries, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An *international bond issue* may be either a Eurobond issue or a foreign bond issue. A *Eurobond issue* is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A *foreign bond issue* is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An *international bank credit* may be either a Eurocurrency credit or a foreign credit. A *Eurocurrency credit* is one denominated in a currency that is foreign to the country of the bank office extending the credit. A *foreign credit* is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances). Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly*.

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina — 7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan — Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 6-month Treasury bills at tender until March 1984. As of April 1984, 3-month Treasury bill repos reported by the Bank of Spain (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances.

South Africa — 90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK\$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.
South Africa — 3-month negotiable certificates of deposit.

Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.

Sweden — 3-month certificates of deposit.
Switzerland — 3-month time deposits.

Taiwan — maximum rate for 3-month time deposits.

Thailand — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.
Australia — secondary market yield for 10-year Treasury bonds.

Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.

Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.

Japan — secondary market average yield on Central government bonds with a maturity of 5 years or more.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.

New Zealand — average yield on government bonds maturing after 5 years.

Norway — 5% government bond of 1996 until December 1982. New series as of January 1983, average yield of long-term government bonds.

Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of indebtedness.

Portugal — yield of 4% Centenary Loan of 1940.

South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.

Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).

Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond index.

Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.
Austria — overdraft rate for prime borrowers, including commission.

Australia — overdraft rate. Maximum indicator rate applying to loans of A\$100,000 or more for major trading banks.

Belgium — prime overdraft rate.

Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.

Canada — prime rate.

Chile — average prime rate of six major commercial banks.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime lending rate set by the Hong Kong Association of Banks.

Indonesia — prime rate for domestic affiliates of foreign companies.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — standard rate of interest on short-term loans of especially high credit standing.

Korea — prime rate.

Malaysia — Bank of Commerce Berhad base lending rate.

Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class, large borrowers.

Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.

Portugal — maximum rate for 90- to 180-day loans.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.

Sweden — overdraft rate for prime industrial borrowers, commission not included.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.

Thailand — prime rate.

United Kingdom — clearing bank base lending rate. A spread above base rate is often added.

United States — prime rate of Morgan Guaranty Trust Company.

Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.

France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.

Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.

Japan — secondary market yield for NTT bond maturing March 1987.

Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- to 5-years.

Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.

Spain — Bank of Spain secondary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).

Sweden — Central Statistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.

United Kingdom — Financial Times secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.

United States — Salomon Brothers index of new issues yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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Reducing the twin U.S. deficits, 1

1987-88: adjustment begins, 3

Adjustment risks, 5

The cost of fiscal
foot-dragging, 8

The reward from fiscal action, 10

Time for action, 12

Statistical appendix, 15

Reducing the twin U.S. deficits

U.S. economic growth, interest rates, and the dollar in the next few years will be determined largely by how the next U.S. President and Congress deal with the nation's notorious twin deficits in foreign trade and the federal budget. A constructive beginning was made last year in reducing both. The trade deficit shrank a bit in volume terms and the federal budget deficit dropped fully one-third (see Chart 1). There should be further progress in 1988, this time more visibly on trade.

Even so, less than a quarter of the trade adjustment will have been accomplished by the end of this year. Evidently, the twin deficits still will bestride the economic and financial scene in 1989 and beyond, setting the next President and Congress a challenging test. How they will score cannot now be predicted, but should they fail, the financial market reaction could jeopardize continued economic expansion.

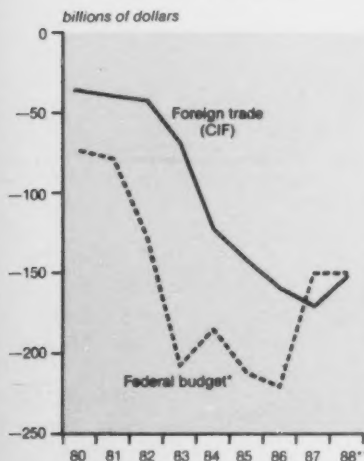
The economic legacy of the Reagan years includes some major pluses. The unemployment rate has fallen to its lowest in almost ten years, 15 million jobs

have been created, and the inflation rate has dropped from 13.5% in 1980 to 3.9% in the twelve months through March 1988. In addition, U.S. manufacturing has achieved much better productivity growth than in the late 1970s.

But there have been minuses too. Most of the now nearly six years of U.S. expansion have been led by domestic private and public consumption, whose growth eclipsed that of domestic output. In the first years of the recovery, strong domestic demand joined with a more favorable tax and regulatory environment to heighten the appeal of investment in the United States, for both residents and foreigners. The dollar climbed in response, raising the prices of U.S.-produced goods relative to those of foreign goods. The upshot: a surge in imports and a drop in exports, both compounded by an excess of domestic investment over domestic savings.

The savings shortfall has implied huge and still-continuing foreign trade and current account deficits. These, in turn, are piling up large-scale net external

The twin U.S. deficits



*Fiscal year data, unified basis
**Estimated

liabilities. To date, the interest cost of servicing this debt has been modest — in net terms, only 0.2% of GNP in 1987. But, were the net external liabilities to continue to rise each year by 3.6% of GNP, as they did in 1987 when the current account deficit reached \$160 billion, the interest cost eventually would become a material drain on U.S. living standards.

There is a link, albeit erratic and indirect, between the twin deficits. By definition, the private-sector deficit (investment minus savings) plus the public-sector deficit (spending minus revenue) equals the external trade deficit in goods and services. Typically during economic expansions, an increase in investment relative to private saving is offset by a reduction in government dissaving as tax receipts rise in tandem with faster income growth. By contrast, during the current expansion, federal government dissaving rose sharply through FY1986. Total domestic saving, government and private, therefore fell far short of investment, and the current account plunged deep into deficit. None too soon, the federal budget deficit came down substantially in FY1987. The trade deficit in real terms came down too, but only a little.

Both market forces and political considerations demand that the U.S. trade deficit shrink in dollar as well as volume terms. If the deficit is to narrow steadily, total domestic saving must be increased and consumption growth held well below potential real GNP growth, with the slack taken up by business investment and net exports.

Some of these ingredients seem to be in place this year. The combined growth in pri-

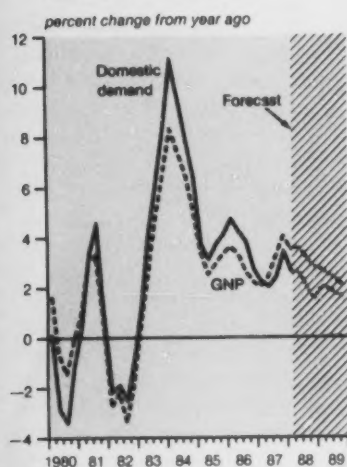
vate consumption, government spending, and residential construction appears quite modest at present, while business investment is vigorous. Attaining satisfactory overall GNP growth depends on a continuing boost from net foreign demand. Sustaining it hinges on the pace of economic growth at home and abroad and the degree of improvement in U.S. competitiveness brought about principally by the lower dollar and cost containment.

Two dangers are paramount in the U.S. economic outlook. First, if foreign economic growth falters or the dollar still has not come down to a fully competitive level, the external stimulus to the U.S. economy will be disappointingly slight, or even negative. U.S. growth then would suffer directly, but also indirectly through the upward pressure on interest rates that would be the markets' price for inadequate progress on the trade deficit.

The second, but opposite, danger is that domestic demand will prove too strong. That would drive import growth higher and inhibit trade adjustment. Moreover, incremental export demand then could place too much pressure on U.S. resources, overheat the economy, and breed accelerating inflation. This spring's fear of inflation has inspired higher interest rates and a marked steepening of the yield curve. There could even be some replay of last year's financial market instability, with the possibility of much higher interest rates ultimately triggering recession.

Avoiding both dangers will be quite a challenge for U.S. policymakers. They have little influence on the course of economic growth abroad. They instead

Chart 2

GNP versus domestic demand

would do well to concentrate on engineering a suitably restrained path for domestic demand. For now, monetary policy is the only available instrument but, once the elections are over, the objective of continued growth with adjustment would be better served by a switch in the policy mix toward fiscal restraint, implementing the Gramm-Rudman-Hollings mandate.

Despite its disquiet at the chronic twin deficits, the public at large is not eager for major sacrifice. The analysis below shows that fortunately the required sacrifice need not entail an outright drop in living standards nor surging inflation. Full employment plus a new Administration and Congress in 1989 provide the opening for decisive fiscal action. It should be welcomed at home and abroad.

1987-88: adjustment begins

In 1987 the U.S. economy began to exhibit a pattern of growth consistent with continued expansion and simultaneous trade adjustment. Despite a marked slowdown in domestic demand, notably in personal consumption, government purchases, and residential construction, real GNP accelerated (see Chart 2). Business fixed investment rose 5.1% in real terms (fourth quarter to fourth quarter) after declining a like amount in 1986. For the first time since 1980, net exports contributed positively, to the tune of 0.3% of GNP.

Worsening of the terms of trade, however, caused the nominal trade deficit to widen, by some \$10 billion to a record \$171 billion on the CIF valuation. In addition, U.S. net investment income deteriorated by \$7 billion,

reflecting higher interest on net foreign debt and taking the current account deficit above \$160 billion, \$20 billion higher than in 1986 (see Table 1). Still, the shift in the pattern of growth last year provides cause for cautious optimism that trade adjustment can proceed in 1988, even as GNP expansion is maintained. The contribution to growth from improving net exports could be another 0.3% of GNP this year, enough to provide a \$20 billion reduction in the nominal trade deficit and a token \$3 billion cut in the current account deficit.

The relative price and income changes bred by the dollar's depreciation have played the principal roles in initiating the shift in the U.S. growth pattern. In broad real effective terms, the dollar has come down 25% from its first-quarter 1985 peak and even has dipped some 2% below its 1980 average level. Significant relative price adjustment is occurring as a result. From 1985 through the first quarter of 1987, import prices for capital goods rose 16% relative to export prices. The corresponding figure for automobiles was 13% and for consumer goods around 10% (see Table 2). Besides dollar depreciation, compensation and productivity trends are benefiting the competitiveness of U.S. manufacturers. Hourly compensation has grown less in U.S. manufacturing than in most other industrial countries since 1980. And, whereas U.S. productivity growth had been much inferior to that achieved by many foreign rivals, U.S. performance has compared quite favorably on average since 1982.

All this has boosted export volumes, which advanced by 15% in 1987 — the strongest rise since 1974. They accelerated to

Table 1

Balance of payments
billions of dollars

	1986	1987	1988
Exports	227	253	307
Imports (CIF)	-383	-424	-459
Trade balance (CIF)	-156	-171	-152
Direct investment			
Income	31	35	30
Interest income	-10	-20	-30
Other services and transfers	-6	-5	-6
Current account	-141	-161	-158
Private capital	84	84	
Official capital	33	55	
Errors and omissions	24	22	

Memo

Net external assets, year-end	-264	-430	-600
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Table 2

Export and import prices
fixed-weight deflators, 1980=100

	1985	1988 Q1
Capital goods		
Imports	86.8	103.0
Exports	114.2	117.0
Relative import price	0.76	0.88
Autos		
Imports	127.1	152.4
Exports	134.5	141.6
Relative import price	0.95	1.08
Consumer durables		
Imports	95.8	114.9
Exports	103.3	109.7
Relative import price	0.93	1.05
Consumer nondurables		
Imports	108.4	127.2
Exports	108.5	114.9
Relative import price	1.02	1.11

Table 3

Export and import volumes
percent change

	Average 1983-86	Year ended 1988 Q1	\$ billions annual rate 1988 Q1
Total exports	5.6	22.0	292.4
Foods, feeds, beverages	-5.4	28.9	29.2
Industrial supplies	2.8	13.2	76.8
Capital goods, nonauto	10.0	33.0	105.6
Autos	8.0	17.9	31.2
Consumer goods	-0.2	25.0	20.8
Other	15.3	-0.4	28.8
Total imports	14.2	11.1	437.2
Foods, feeds, beverages	7.1	3.4	26.4
Industrial supplies, non-oil	9.7	4.1	75.1
Petroleum and products	7.0	24.3	42.2
Capital goods, nonauto	26.9	27.3	97.6
Autos	15.9	-3.9	82.8
Consumer goods	16.0	3.9	92.8
Other	10.9	-1.6	20.4

26% annual growth during the second half of the year when economic growth was particularly rapid abroad. Export volume gains should again be on the order of 15% in 1988. Optimism here relies on the fact that the strength in exports has been broad-based to date, encompassing every major class of goods and all major export markets (see Tables 3 and 4). Moreover, the dollar has come down another 7% in broad real effective terms since last October, the drop delivering a further boost to the competitive fortunes of U.S. producers in international markets. Continued rapid growth in exports this year implies that U.S. manufacturers will regain another slice of the 25 percentage point or more fall in world market share they suffered in volume terms during the years of dollar appreciation. Even so, market share recovery will remain incomplete.

Harder to fathom is the slow U.S. headway in adjusting imports. Import volume growth dropped to just under 6% in 1987 from a 16% annual rate over the previous four years (see Chart 3). But 1987 import growth still was above the 3.4% growth of domestic spending. Thus the tendency toward ever-increasing import penetration has not been arrested for the U.S. economy in the aggregate. Even so, for imports generally, 1988 is likely to see some further slowing in volume growth, as a greater proportion of the dollar's decline shows up in higher import prices.

U.S. industry is a clear beneficiary of the more favorable trend in foreign trade. Industrial output rose 5.8% in 1987, after rising just 1.5% on average in 1985 and 1986. Half the 1987 in-

crease went directly for export, while much of the remainder likely was induced by the strength of exports.

Another year of above-trend growth in domestic production looks in store for 1988 (see Table 5). Manufacturers' unfilled factory orders are more than 11% above their year-ago levels. Their steady growth since early last year reflects the continued inability of shipments to keep pace with orders, and suggests a need for expanded capacity. Manufacturers increasingly have felt the need to step up plant and equipment investment, so that between the first quarter of 1987 and the first of 1988 business fixed investment rose 15%. Orders data point to continuing strength in plant and equipment investment. Though accounting for only 16% of total factory orders, nondefense capital goods have contributed more than half the past year's increase. Besides, the Department of Commerce's January-March survey of plant and equipment spending intentions for 1988 revealed that businesses plan an 8% increase over the 1987 level in inflation-adjusted terms.

As was prerequisite to trade adjustment, domestic demand components other than business investment turned subdued in 1987. Investment in residential construction was flat, following average annual gains of 15% over the previous four years, high vacancy rates and tax reform depressed construction of multifamily units, while higher interest rates slowed the housing industry in general. The federal government tightened its finances, with its FY1987 outlays rising only 1.4%, the smallest gain in over twenty years. Adjusted for one-time factors, the

Table 4

Exports by destination

billions of dollars at annual rates

	Jan- Feb 1987	Jan- Feb 1988	% change
Total	217	275	27
Exports to			
Western Europe	64	79	24
Canada	53	61	13
Japan	23	34	47
Asian NICs*	19	28	51
Mexico and Brazil	15	19	28
OPEC	9	12	40
Other	34	42	24

*Hong Kong, Korea, Singapore, and Taiwan.

budgetary posture provided demand restraint of about 0.7% of GNP, and should be similarly restrictive in the current fiscal year.

The tighter policy stance helped explain the slowing of private consumption last year. Whereas consumer spending accounted for nearly three-quarters of the rise in real GNP from the end of 1982 through the end of 1986, it accounted for only one-sixth last year. Weakness in consumer spending is both an integral part of the trade adjustment process and a reflection of it. Spending on goods — typically more tradable than services — actually declined in 1987. And dollar depreciation contributed to inflation high enough that 1987's 5.3% gain in nominal disposable income delivered little increase in real purchasing power.

Moreover, personal saving moved higher with the drop in consumer confidence and wealth following the stock market crash. This precipitated an outright decline in real consumer spending in the final quarter of the year, leading to optimism that the trade deficit would take a sizable turn for the better in the early months of 1988. Instead, February's figures revealed an unexpectedly high deficit thanks to a stiff increase in imports concentrated in capital goods. Financial market reaction to the news was swift and harsh. Adjustment optimism had given way to doubt.

Adjustment risks

There are external and internal risks to the smooth working of the adjustment process. On the external side, U.S. adjustment could prove such a drag on the world economy that U.S. export

growth will fade as foreign markets flag; or the still-rising import penetration of the U.S. economy may reveal a need for further dollar depreciation to enhance U.S. competitiveness. Either way, U.S. economic growth would lose out by an unexpectedly modest boost from net foreign demand. The internal risk is that domestic demand may expand too fast, leaving insufficient room for net exports to rise and driving inflation higher as the economy overheats. That would call for corrective recession.

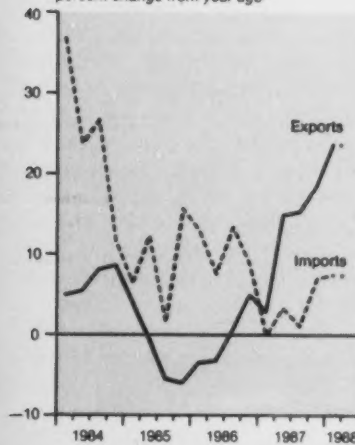
The first external risk is not particularly worrisome at present. The current growth outlook for most major U.S. export markets in 1988 is moderately favorable (see Table 6), even though their growth will be slower than in the second half of last year. Real GNP growth in Canada, the largest U.S. trade partner, is expected to retreat from the 6% annual-rate growth of the second half of 1987 to perhaps 2.5% toward the end of this year, due partly to a stronger currency and higher interest rates. In Japan, growth approached 6% in last year's second half and appears to have continued at a fast clip through the winter months. But the distinct slowing that is now apparent in housing starts (in seasonally adjusted terms) and the phaseout of the higher public spending provided by the mid-1987 fiscal stimulus are likely to bring down Japan's growth to little more than 2% in the second half of this year. A similar pattern of slowing — but still solid — growth holds for the Asian NICs and for Britain.

Stubbornly high import penetration is less reassuring from an adjustment perspective. The huge and fairly open U.S. market holds unrivaled attractions to

Chart 2

U.S. import and export volumes

percent change from year ago



*January-February average

Table 5

Real GNP and components
percent changes at annual rates,
calendar year averages

	Actual		Forecast	
	1986	1987	1988	1989
Real GNP	4.1	2.9	3.4	2.5
Consumption	4.6	1.9	2.4	2.8
Goods	5.3	0.3	1.2	2.0
Services	3.7	3.5	3.5	3.5
Government purchases	4.1	2.3	1.5	1.1
Federal	5.1	1.1	0.0	-0.6
State and local	3.4	3.2	2.6	2.5
Residential investment	16.9	0.0	-2.4	-2.2
Business fixed investment	4.9	1.0	12.3	3.9
Exports	1.0	12.8	13.1	8.4
Imports	11.7	7.3	7.8	4.5
Contributions to GNP growth				
Domestic final sales	5.0	1.8	3.1	2.4
Inventory investment	0.3	0.8	0.0	-0.3
Net exports	-1.4	0.3	0.3	0.4
Memo Item				
CPI	3.2	3.7	4.0	4.9

Table 6

Real GNP
percent change

	Year average		Year to 1988Q4
	1987	1988	
United States	2.9	3.4	3.1
Japan	4.2	4.5	3.1
Western Europe	2.5	2.3	1.5
Germany	1.7	2.0	0.8
France	2.0	2.2	1.6
Italy	3.1	2.2	2.0
United Kingdom	4.3	3.2	2.5
Canada	4.0	3.2	2.3
Mexico	1.3	2.0	2.5
Hong Kong	13.6	8.0	5.0
Korea	12.2	9.5	7.0
Taiwan	11.0	8.5	7.5

producers around the world. Many seized the opportunity, as the dollar rose from 1980 through 1985, to develop and expand U.S. market share while earning high profits too — U.S. import prices eroded much less than the dollar's appreciation might have warranted. Since the dollar went into decline, many of the profits have been sacrificed for the sake of U.S. market share. Thus only a fraction of the dollar's fall has been "passed through" in the form of import price increases. Though the pace has picked up in the past year or so, overall nonpetroleum import prices have increased at an annual average of only 4%-5% since late 1985 — not much faster than domestic prices, thanks to small increases, or even declines, in prices of imported raw materials and electronic equipment and components.

With global production increasingly mobile, many such imports come from the NICs. In the successful cases, local enterprises — or affiliates of U.S. and other foreign firms — harness low labor costs to increasingly sophisticated technology, achieving rapid productivity gains in large-scale output intended principally for export.

Hardly any of these countries has let its currency appreciate significantly against the dollar (see Table 7). Hong Kong's currency is actually pegged to the dollar. The Korean won remains 12% below its 1980 value in real bilateral terms against the dollar, although some of that competitive gain now may erode through a combination of domestic wage pressure and modest nominal appreciation against the dollar compelled by Korea's burgeoning current account surplus. Though up sharply in the past

two years, even Taiwan's currency is above its 1980 level in real bilateral terms against the dollar, despite a long-standing current account surplus that hit 19% of GNP in 1987 and that may decline little this year if gold imports are excluded (as they should be). As wage levels in Hong Kong, Korea, and Taiwan rise in dollar terms, each must inevitably cede less-profitable product lines to lower cost areas — to China, Mexico, or other countries in Asia, Latin America, and the Caribbean. Yet the principal Asian NICs still will have advantages over Japan, Europe, and the United States for production of many items that are beyond the present capabilities in countries offering lower hourly wage costs. Thus, for a wide range of manufactured goods, U.S. import sources will continue to shift and import prices will be held down by competition for U.S. market share.

Japanese and European producers still are very much part of that competition; in dollar terms U.S. imports from Japan were up 6% in January-February from year-earlier levels, and from Europe were up 12%. For high-volume products, direct investment in U.S. production facilities may be the logical relief from currency pressure. By contrast, direct exporting to the United States is the preferred approach in more customized, lower-volume lines such as capital goods. Successful efforts to effect home-base productivity gains and other cost savings are said to have enabled Japanese and German producers to become fairly comfortable with current dollar exchange rates.

That likely is one reason why rising import penetration of the U.S. market now is evident chief-

Table 7

Dollar cost of foreign currencies*

Currency of	April 1988, percent change from	
	1980 average	1985Q1
Japan	33	79
Germany	2	87
United Kingdom	-2	80
Canada	4	15
Mexico	-12	6
Hong Kong	-13	12
Korea	-12	14
Taiwan	-5	20

*Inflation adjusted using wholesale prices of manufactures excluding food and fuel.

ly in the capital goods sector, where domestic producers have lost out heavily to Japanese and German competition. Whereas consumer goods and other imports rose just 2.8% last year, capital goods imports rose 15.6% following a 19.1% jump the previous year. The strength of capital goods imports has continued into the first months of 1988. In large measure it reflects the upswing in U.S. business investment generally, including growing investment by foreigners building production facilities in the United States.

Since the U.S. adjustment problem often is characterized as one of domestic overconsumption, some commentators are portraying the shift in U.S. import composition toward capital goods as a positive development. After all, do not such imports add to the nation's capital stock, whose future output will help service the associated foreign borrowing? It is true that U.S. business investment is booming, presumably adding to the productive capital stock. Unfortunately, some of the capital goods inflow is substituting for domestically produced capital goods. Imports are preferred in many cases for their technological advantages over domestic substitutes, if any. In other cases, price is the determining factor; foreign capital goods producers, by the measure of U.S. import prices relative to export prices, have held on to about half the price advantage that they built up while the dollar was strengthening. This suggests that the competitiveness of U.S. capital goods producers is not what it was. Further dollar depreciation would be a natural part of the remedy.

Domestic producer competi-

tiveness also is in question given the U.S. appetite for imported consumer goods, especially in light of the substantial pickup in personal consumption reported for the first quarter of 1988. Consumer confidence has returned almost to precrash levels. This owes much to the strong employment gains that also underlie the resumption of growth in real disposable income; this rose at a 4.6% annual rate over the past two quarters, after increasing less than 1% over the previous year.

Coupled with booming business fixed investment, stepped-up consumption suggests that GNP growth may be distinctly above 3% this year. Yet another year of output growth exceeding the U.S. economy's potential — probably no higher than 2.7% — could upset price discipline or at the least produce higher inflation than earlier in the recovery. One warning comes from producer prices. Although finished goods prices rose only 1.8% in the year ended in March, prices at the intermediate and crude levels have accelerated considerably, rising 5% and 4.2% respectively (see Table 8). Finished goods prices will accelerate somewhat as the higher input costs are absorbed.

Besides, in a number of industries facing strong demand, capacity is under strain and inflation pressures are real. Overall capacity utilization now stands at 82.3%, up from 79.7% a year ago, and above the 20-year average of 81.5% (see Table 9). Operating at 86.3%, primary-processing industries are closer to full capacity than are advanced-processing industries, which are at 80.6%. Utilization is above preferred levels in the chemicals industry, and is at or

Table 8

Producer prices percent change

	Year to Mar 1988
All finished goods	1.8
Intermediate materials, supplies, and components	5.0
Crude materials for further processing	4.2
Selected intermediate prices	
Processed yarns and threads	6.5
Finished fabrics	5.8
Industrial chemicals	9.3
Phosphates	12.5
Paper	9.4
Paperboard	10.0
Steel mill products	7.3
Selected crude prices	
Iron ore	-3.7
Iron and steel scrap	57.6
Logs and timber	22.8
Wastepaper	8.3

Table 9
Capacity utilization
percent

	March 1988	20-yr. average	Pre- ferred
Total	82.3	81.5	—
Manufacturing	82.5	80.6	89.4
Primary			
processing	86.3	81.7	—
Advanced			
processing	80.6	80.1	—
Durable goods	80.2	78.7	89.2
Iron and steel	84.9*	78.6	89.3
Motor vehicles			
and parts	79.2	78.1	90.0
Aerospace	87.7	77.7	90.0
Nonelectrical			
machinery	78.7	78.1	84.7
Electrical			
machinery	77.1	78.1	91.3
Non-durable			
goods	85.9	83.5	89.6
Textiles	91.0*	85.0	98.7
Paper	94.8*	88.5	96.1
Chemicals	86.2*	78.9	84.3
Petroleum	87.9	68.8	95.7
Rubber and			
plastic	88.0*	84.8	95.2

*Data are for February.

Sources: Federal Reserve Board;
DRI/McGraw Hill May 1987 survey
for preferred rates.

near all-time highs in textiles, paper, and aerospace. Capital spending plans generally are highest in industries closest to full capacity and where the fastest increases in intermediate producer prices have occurred, such as paper, chemicals, steel, and aerospace (see Table 10). Even so, temporary bottlenecks may arise, since it takes time for new plant and equipment to be built and put into use.

The central U.S. inflation risk involves a potential loss of wage discipline. A degree of tightness is emerging in labor markets now that the unemployment rate is down to 5.5% — a level normally associated with wage pressures. Wages have responded little so far. Wage increases averaged around 3% in 1987, the same as in 1986. Even union contracts, which on average look forward about three years, have not yet shown a tendency to set higher wages than those negotiated the last time the same parties met. Moderation is encouraged by the heightened consciousness of international competition on the part of both employers and labor — an important factor prompting labor negotiators to aim for job security instead of wage gains. This altered environment suggests that the rate of wage inflation associated with 5½%-6% unemployment may be less than in previous expansions. Besides, wages typically follow, rather than lead, price trends, so that only modest wage acceleration now seems likely this year.

Altogether, U.S. consumer price inflation is trending higher in 1988, to an annual rate of perhaps 5% toward year-end. More worrisome is the possibility that the wage-price spiral will intensify in 1989 and beyond, in the

event that total demand on the economy — whether from domestic or external sources — proves so strong that the labor market tightens further and capacity shortages become more prevalent. If the sources of excess demand are domestic, then the economy not only will be at risk of overheating, but also of backsliding on trade adjustment.

The cost of fiscal foot-dragging

A start has been made on re-orienting the U.S. economy toward growth with trade adjustment. Taking 1987 and 1988 together, growth in fixed investment may total 13%, but in goods consumption no more than 2%. The likely 9% rise in domestic manufacturing output over the two years will exceed the rise in domestic use, the excess being diverted to help correct the external imbalance. Unfortunately, the excess diverted during 1987 and 1988 is making no great dent — less than 1% of GNP — on the external imbalance in real terms, and no dent at all in current dollar terms. Moreover, there is no assurance that greater adjustment progress is in the pipeline for 1989 and beyond.

In principle, monetary policy is less satisfactory than fiscal policy in addressing external imbalance. Tight money succeeds in reducing a trade deficit because it depresses domestic demand. Unfortunately, investment suffers disproportionately. Moreover, monetary restraint tends to drive up the exchange rate, exacerbating the extent to which domestic demand must fall to achieve any given improvement in the trade deficit. Tight fiscal

Table 10

Plant and equipment expenditures

percent changes from preceding year

	Actual		Planned
	1986	1987	1988
Total	-2.0	2.4	8.8
Manufacturing	-7.0	1.9	9.8
Durable goods	-5.6	2.6	6.8
Blast furnaces, steelworks	-19.4	39.2	17.8
Motor vehicles	-4.6	-13.8	-4.8
Aircraft	10.0	-6.6	1.5
Nonelectrical machinery	-14.9	1.2	5.2
Electrical machinery	-8.4	7.7	11.8
Nondurable goods	-8.3	1.3	12.6
Textiles	-5.9	17.0	4.5
Paper	2.0	1.8	6.5
Chemicals	2.3	-2.6	8.4
Petroleum	-32.9	-5.5	11.1
Rubber	0.8	-9.5	4.3

Source: U.S. Department of Commerce.

policy, by contrast, places more of the adjustment burden on consumption to reduce a trade deficit. Besides, complemented if necessary by monetary easing, it avoids counterproductive exchange rate appreciation.

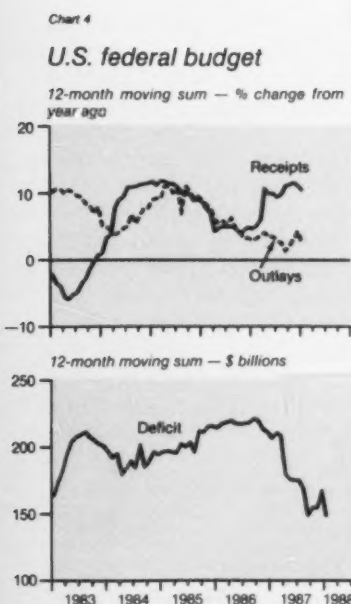
The sensible way to deal with both the external imbalance and the incipient strain on U.S. resources lies, therefore, through fiscal restraint on the part of the federal government. Although considerable restraint was achieved in FY1987 and again now in FY1988 (see Chart 4), no follow-through is yet assured for FY1989. Foot-dragging on budget deficit reduction will remain a temptation even beyond FY1989. A new President and Congress may not feel constrained by the existing Gramm-Rudman-Hollings (GRH) mandate that the deficit be eliminated on the unified definition by FY1993.

Compliance could be hindered by the recent "discovery" of surpluses in the Social Security trust funds. By the Congressional Budget Office (CBO) estimate, the surpluses will rise from \$20 billion last fiscal year (0.5% of GNP) to \$100 billion (1.5% of GNP) by FY1993. Some see these surpluses as affording the opportunity for higher spending, warning that the surpluses would constitute fiscal drag on the economy's growth. No such conclusions are warranted. The GRH targets were developed with full awareness of the Social Security trend. Were Social Security surpluses dissipated during the next five years, meeting the GRH targets for the overall federal deficit would double the cuts otherwise required in "on-line" budget items. After all, under current tax law and without cuts, the overall federal deficit — in-

cluding Social Security — is set to decline by the CBO projection only from 3.4% of GNP in FY1987 to 2.1% in FY1993.

Under present law and middle-of-the-road demographic assumptions, the Social Security surpluses could continue to grow well into the twenty-first century, potentially cumulating to many trillions of dollars. The overall federal position could move into surplus by the mid-1990s if the GRH targets are met, or a few years later if not. The attendant fiscal drag would be modest — not so large in any one year as to necessitate offset through higher spending at the time, let alone justify higher spending now. Instead, the challenge will be to ensure that mounting Social Security surpluses find their counterpart in stepped-up and productive real investment. That may require major reform of the Social Security system in due course, for the extra investment will be much needed in the twenty-first century to support today's baby-boom generation in retirement.

The danger in letting Social Security, or some other pretext, get in the way of reducing today's federal deficit is apparent from the implications of a "current policy" scenario. This assumes that the November 1987 Congressional accord on expenditure cuts for FY1988-89 is kept fully in effect; that the GRH mandates for federal deficit reduction in FY1990 and beyond are ignored; and that monetary policy is managed in such a way that U.S. economic growth continues at, or a mite above, the potential rate so that unemployment falls further. Because the U.S. economy looks to be growing faster in 1988 than official projections have assumed, the simulation re-



sults suggest that the federal deficit will hew fairly close to the GRH targets this fiscal year and next. But subsequent progress would be slim. Consistent with the CBO projection, the "current policy" scenario would leave the federal deficit close to \$100 billion even in FY1993, with the entire reduction from the current level attributable to the Social Security accounts.

Over the same horizon, the current account deficit would narrow slightly this year but resume widening by late 1989. By 1993 it could approach \$190 billion annually — 2.7% of GNP — largely through the burden of fast-rising net interest payments to foreigners; U.S. net external debt would reach in excess of \$1.3 trillion dollars. Some analysts argue that this debt would be merely the natural and efficient counterpart to the large external asset accumulation desired by high-saving, but aging, Japanese and Europeans. Yet trouble already is brewing as foreigners take advantage of a depreciated dollar to buy up U.S. businesses and real estate. U.S. labor unions are ruffled. Politicians decry what they depict as a loss of U.S. independence and self-esteem, even as a threat to national security. Besides, financial markets are unlikely to sit still as the U.S. foreign debt mountain towers ever higher. Accordingly, the "current policy" scenario must be judged unworkable, unacceptable, and a formula for protectionism, controls on international capital movement, financial instability, and possibly recession.

The reward from fiscal action

To forestall the potentially calamitous consequences of an ex-

cessive buildup in U.S. external debt, and to make room for the higher investment needed to realize the economy's long-run potential, the next President and Congress would be well advised to enact speedily a fiscal package that substantially and credibly adheres to the Gramm-Rudman-Hollings targets for the federal deficit.

Ideally, the specifics of the overall fiscal package would encourage a greater allocation of resources toward capital formation and away from consumption; as things stand, the federal budget curtails private capital formation by channeling private saving toward the public sector, whose expenditures are heavily weighted toward transfers to individuals, thereby subsidizing consumption. Accordingly, a growth-oriented fiscal package would emphasize consumption taxes — on gasoline, for example — plus further cuts in consumption-subsidizing expenditures.

To be politically viable, however, a fiscal package will have to be carefully tailored to meet diverse economic and social concerns. The precise makeup cannot be readily forecast. It is likely to demand sacrifices from all segments of U.S. society.* The detailed specifics, however, are less important to the macroeconomic outcome than the aggregate dollar amount and the broad composition of the package. For illustration, a package meeting the macroeconomic need might be designed to strike a 60/40 balance between expen-

*The pros and cons of specific U.S. budgetary actions will be thrashed out by the newly established National Economic Commission. The Commission is chaired by former Special Trade Representative Robert Strauss and former Secretary of Transportation Drew Lewis. It is scheduled to report by March 31, 1989.

Table 11

A fiscal action package

measures to attain the Gramm-Rudman-Hollings goal to eliminate the federal budget deficit by FY1993
billions of dollars

Changes in 1993 level relative to "current policy" projection*				
		Implemented together		
	Level 1987	Implemented individually with monetary offset	With no monetary offset	With monetary offset and further dollar depreciation
Spending reductions				
Defense, one-year freeze in FY1989	290	16	16	16
Nondefense, one-year freeze in FY1989	84	11	11	11
Entitlements, 2 percentage point reduction in growth	402	40	40	40
Tax increases				
Personal income tax, 5% surcharge	395	26	2	2
Corporate income tax, 10% surcharge	104	8	-31	-11
Indirect business taxes	54	19	15	18
Subtotal		120	53	95
Effect on other budget items**			-17	10
Deficit reduction			36	105

*These estimates and also those in Table 12 were developed in part using the Washington University Macro Model maintained by Lawrence H. Meyer and Associates.

**Unemployment benefits, interest paid, Social Security taxes, etc.

diture cuts and revenue increases. Principal features of this package could be as follows:

- A one-year freeze on defense spending is assumed to start at the beginning of FY1990. Goods and services purchases, Department of Defense military and civilian employment and pay would be frozen in current-dollar terms at the 1989 fourth-quarter level for one year. After that, defense spending would return to a path of 4% to 5% growth per year.
- A parallel freeze would be put on nondefense spending. Nominal purchases of goods and services, employment and pay, and grants in aid to state and local governments would

be held constant over the same 12-month period. After that, nondefense spending would return to a path of 4½% to 5½% growth per year. The reductions in grants in aid are assumed not to be offset by increased state and local spending.

- Growth in entitlement spending would slow. From the beginning of FY1990, the growth rate of nominal spending on transfers to persons (excluding unemployment compensation) is assumed to be reduced from 6% in 1988 to 4% per year thereafter through the end of 1993.
- Income taxes would be surcharged. From the beginning of 1990, a 5% surcharge would be levied on personal income taxes, raising the top marginal rate, for example, from 28% to 29.4% (not 33%). A 10% surcharge would be levied on corporate income taxes. Otherwise, the income tax structure is assumed unaltered.
- Indirect taxes would be increased. Federal excise taxes would be raised by amounts reaching \$19 billion by 1993. Accepting the CBO estimate that a one-cent per gallon tax on motor fuel would yield approximately \$1 billion, a ten-cent tax would generate a \$10 billion increase in indirect business taxes. The CBO also estimates that certain increases in the taxes on cigarettes and alcoholic beverages (so-called sin taxes) would yield from \$7.5 billion in 1989 to \$9.3 billion in 1993.

Table 11 summarizes how the several elements of this fiscal package would contribute — separately and together — to federal deficit reduction in

Table 12

The economy in 1993

	"Current policy"	With fiscal package
Real GNP*	2.8	2.6
GNP deflator*	4.4	4.3
Unemployment (%)	5.0	6.1
Federal Funds rate (%)	8.0	7.6
Corporate bond yield (AAA, %)	10.2	10.0
Federal deficit**	-92	7
% of GNP	-1.3	0.0
Dollar effective exchange rate***		
Nominal (narrow)	-11	-23
Real (broad)	-6	-11
Billions of dollars		
Trade balance (CIF)	-128	-13
Current account excluding interest	-75	30
Current account	-188	-50
Net external assets	-1330	-957

*1988-93 annual average percent change.

**FY1993, billions of dollars.

***Cumulative percent change from 1988Q1.

FY1993.* On the face of it, totaling the individual contributions, the full package would reduce the federal deficit by about \$120 billion, or by enough to meet the GRH target for complete elimination of the deficit by 1993. But the full package would impose significant fiscal drag on the economy. Unless this drag were offset by monetary relaxation, nominal GNP growth during the next five years might be cut from a 7.4% annual average to growth of 6.2%. That would wipe out most of the expected gains in tax revenues and inflate spending for unemployment relief. Altogether, the package would yield only about \$40 billion net reduction in the federal deficit and entail crippling economic cost.

The constructive solution lies through a well judged easing of monetary policy that offsets part of the fiscal drag implied by the package. Once the fiscal measures begin to take effect, the Federal Funds rate could be lowered modestly relative to its path in the "no policy change" scenario. Lower interest rates would induce additional dollar depreciation (projected by 1993 at 23% from the current level on the nominal "narrow" Morgan index, but amounting only to about 10% in broad real effective terms). Under this mix of fiscal restraint, monetary ease, and dollar depreciation, the U.S.

economy should be capable of real GNP growth averaging 2.6% — consistent with no more than a small increase in unemployment and no acceleration in inflation relative to the outlook under the "current policy" scenario (see Table 12).

The outcomes for the twin deficits would be vastly improved by the suggested policy package. By FY1993 the federal budget would move into small surplus. The merchandise trade deficit in 1993 would be down to an insubstantial \$13 billion on the CIF valuation. The current account, excluding interest, would be in surplus of up to \$30 billion. Interest payments on a net foreign debt approaching \$1 trillion would leave the current account in the red by \$50 billion. At that level, however, the deficit would be down to only 0.7% of GNP — about one-fifth the 1987 imbalance. Moreover, this policy package would prevent outsize growth in net foreign debt, instead holding it below 15% of GNP.

Time for action

The main lesson from this analysis is that the twin U.S. deficits can be corrected within four or five years by a fairly modest shift in the macroeconomic policy mix without triggering either recession or severe inflationary pressures. Meeting these goals, however, will demand a major commitment on the part of the next President and Congress, together with the Federal Reserve. The commitment would be to attaining the Gramm-Rudman-Hollings budget targets, with the Federal Reserve providing a degree of monetary ease to help offset fiscal drag. Enacting

*Because the spending reductions are specified in current dollar terms, their contributions to deficit reduction are substantially independent of developments in the economy at large. But the net proceeds of tax increases depend critically on the rate of inflation and economic growth. These in turn are affected by the fiscal posture. The contractionary effect of any one of the suggested tax measures, if implemented in isolation, would not be very large. As a result, each would deliver deficit reduction fairly close to what casual arithmetic — ignoring the contractionary effect — might suggest.

an appropriate fiscal package is a tough political challenge not only because of the distributional aspects but also because austerity is likely to be perceived as all pain for no gain; hence the importance of the monetary dimension.

It would be tempting to shirk fiscal action in favor of simply waiting for the markets to drive down the dollar. Yet passivity is no solution to either of the twin deficits. Since the economy is virtually at full employment and capacity use, dollar depreciation alone is an ineffective instrument for trade balance correction. Unaccompanied by fiscal action, the major result of dollar depreciation would be inflation. Nor, given the high degree of indexation of federal revenues and spending, would that inflation do much to trim the budget deficit.

Accordingly, there is no workable substitute for fiscal action to correct the twin deficits. The honeymoon of a new Administration and Congress, together with the strong state of the economy, provides an exceptional opportunity to launch a budgetary initiative adequate to the challenge, the more so as there is plenty of evidence that the voting public is troubled by the chronic deficits and debt buildup.

This shift of U.S. policy makes no extraordinary demands on "cooperation" by Japan and Europe. But the needed improvement in U.S. real net exports will exert a drag on their economic growth comparable to that of the 1979 oil shock. Albeit with some delay, Japan and Europe will find it in their self-interest to compensate for loss of external demand by measures that bolster domestic demand. If the compensation is roughly one-for-one, the monetary easing accompany-

ing U.S. fiscal action would involve the dollar falling further by 10% or so in real terms to achieve major correction of the U.S. trade deficit. Less demand compensation on the part of Japan and Europe would require a steeper decline in the dollar. Thus there is no single right rate for the dollar that would assure international adjustment independent of demand management policies in the United States and the other G-7 nations.

Two or three years ago, the possibility of major U.S. trade adjustment was seen as a real threat to Japan's prosperity. As things have turned out, expansive monetary policy and last year's fiscal stimulus have enabled Japan to resume fast economic growth based on domestic demand. Because Japan's economy has coped well with its loss of net external demand so far, there is confidence that it will cope with the further loss to come. This should be an encouragement to Hong Kong, Korea, and Taiwan as they too come to grips with the reduction in their net exports that regional adjustment will require. Since the entire region will have to become less dependent on the U.S. market as the engine of economic growth, U.S. adjustment will act as a force for stepped-up integration of the Asian economies.

U.S. adjustment is more disconcerting for Europe, no matter that European opinion leaders long have preached its urgency. Except for Britain, few European countries — and especially not Germany — have shaken off the notion that economic growth is most prudently based on exports. Expansionary demand policies remain out of style in Europe — witness the German government's swift rejection of its

national research institutes' end-April recommendation for a less restrictive fiscal policy. Instead, many European policymakers are preoccupied by the approach of "1992." By that year EC members are supposed to have dismantled the presently manifold intracommunity nontariff barriers, thereby "completing the internal market." In principle, that should be good for Europe's productivity, dynamism, and ability to live with external shocks. U.S.

adjustment provides added incentive for Europe to carry through the structural reforms that are the *sine qua non* of success in its "1992" endeavor, in turn allowing Europe to base its growth with confidence on domestic demand.

In sum, steadfast implementation of a credible U.S. fiscal action program during the next presidential term promises rich dividends for both the U.S. and the world economy.

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Statistical appendix

*For key to data in tables
see 1988 issue 1.*

Effective exchange rates —
industrial countries, 16

Real effective exchange rates —
developing countries, 17

International banking market
size, 17

International bond issues and
bank credits, 18

Eurocurrency deposit rates, 19

International bond yields, 19

Central bank discount rates, 20

Day-to-day money rates, 20

Treasury bill rates, 21

Representative money market
rates, 21

Commercial bank deposit
rates, 22

Domestic government bond
yields, 22

Commercial bank lending rates
to prime borrowers, 23

Domestic corporate bond
yields, 23

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Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1983	114.2	100.8	107.8	92.0	87.3	107.5	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.5	82.2
1984	122.3	97.3	112.9	94.2	84.4	107.3	86.7	88.1	103.6	88.9	103.9	77.4	110.5	93.9	97.8	84.3
1985	127.0	92.8	115.9	76.3	85.5	107.8	82.1	88.2	104.2	89.6	104.0	75.6	109.5	95.1	95.6	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.2	81.6
1987	94.1	89.6	164.4	58.3	87.1	122.0	82.3	79.0	110.6	95.6	114.6	73.1	123.1	102.8	85.7	80.1
1987																
May	93.5	88.4	168.2	58.7	87.1	121.7	82.1	79.8	110.1	95.6	114.3	71.4	123.8	103.6	85.8	80.4
June	94.8	88.8	164.7	59.9	87.1	121.6	81.8	79.1	110.2	95.6	114.3	71.9	122.7	103.4	86.5	80.5
July	96.0	90.0	159.1	60.0	87.2	121.4	81.6	79.2	110.2	95.4	114.2	72.5	122.2	102.4	87.2	80.4
August	95.7	90.0	162.7	59.8	86.8	121.3	81.5	78.9	110.1	95.2	114.1	73.6	122.6	101.3	87.3	80.2
September	93.9	90.3	165.4	60.5	86.9	121.5	81.8	79.6	110.1	95.3	114.4	74.6	122.7	101.0	87.4	79.7
October	93.4	90.7	165.1	59.9	86.7	121.3	81.7	80.0	115.7	95.1	114.5	75.9	122.3	101.3	87.0	79.6
November	90.0	89.3	171.2	54.3	86.7	123.6	81.2	81.5	110.9	95.6	115.9	75.6	125.4	102.5	85.2	79.2
December	87.4	89.4	178.6	55.1	87.0	123.8	81.4	81.9	110.8	95.8	115.9	75.2	126.9	103.0	83.5	78.9
1988																
January	87.4	91.0	179.8	55.1	87.2	123.4	81.3	81.2	110.7	95.6	115.6	74.8	126.5	103.0	84.6	79.1
February	88.2	92.6	179.3	56.0	88.8	122.9	81.0	80.8	110.7	95.4	115.6	75.0	125.1	102.8	85.4	79.7
March	86.8	93.7	180.7	57.0	86.3	122.8	80.5	83.5	110.7	95.2	115.4	75.5	123.9	102.3	85.1	79.9
April	85.7	95.0	183.3	58.3	85.2	122.7	80.1	85.2	110.6	95.2	115.3	76.6	123.3	101.2	86.8	80.3
March 18	86.9	93.4	179.9	57.3	86.2	122.9	80.4	83.9	110.7	95.2	115.3	75.4	123.9	102.2	84.9	79.8
25	86.7	94.0	181.9	57.5	86.1	122.7	80.4	83.8	110.6	95.1	115.2	75.6	123.6	102.0	85.2	80.0
April 1	85.5	94.5	183.7	56.6	86.3	122.8	80.3	84.7	110.6	95.0	115.3	75.7	124.1	101.9	85.2	79.8
8	85.9	94.1	182.8	56.9	86.2	122.6	80.2	85.1	110.6	94.9	115.2	76.0	123.8	101.9	85.5	79.9
15	86.1	94.5	182.8	57.6	86.2	122.6	80.2	84.7	110.6	94.4	115.3	76.0	123.5	101.7	85.9	80.0
22	85.4	94.7	183.7	57.8	86.1	122.5	80.0	85.6	110.6	94.9	115.2	76.2	123.6	101.3	86.5	80.1
29	85.7	95.0	183.3	58.3	85.2	122.7	80.1	85.2	110.6	95.2	115.3	76.6	123.3	101.2	86.8	80.3
Real against 15 other industrial-country currencies																
1982	109.3	100.6	92.4	105.7	87.3	99.9	98.5	98.8	101.2	91.9	100.5	98.9	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.8	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.8
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	121.7	96.4	99.0	88.9	100.4	96.6	100.2	92.8	103.2	85.2	96.5	92.4	97.9	101.2	99.3	96.8
1986	100.9	93.3	122.2	78.4	103.8	103.3	102.6	87.3	106.5	84.6	101.4	93.9	105.5	107.4	96.9	96.0
1987	90.2	96.4	128.0	80.3	105.2	106.3	103.5	87.4	110.3	84.3	104.4	95.8	109.4	111.6	100.3	95.3
1987																
November	86.6	96.8	131.8	76.5	104.3	107.3	103.4	90.6	110.0	83.3	105.2	99.5	111.0	112.1	100.8	95.1
December	84.3	97.0	136.9	77.9	104.6	107.6	104.0	91.1	110.1	83.2	104.6	98.9	112.3	112.5	99.0	94.8
1988																
January	84.5	99.0	137.3	78.1	104.7	107.2	104.5	90.7	109.8	83.1	102.4	98.8	111.5	112.3	110.7	95.7
February	85.5	100.1	136.3	79.7	104.2	106.8	103.9	90.3	109.9	82.5	102.6	99.6	110.3	112.8	102.1	96.7
March	84.7	100.5	136.0	81.5	103.9	106.2	103.5	93.5	109.9	82.2	103.3	100.5	109.4	112.7	103.0	96.1
April	83.4	102.7	137.1	83.8	102.8	106.1	102.9	95.6	109.6	81.7	103.4	101.6	109.0	111.8	105.2	96.5
Real against 18 other industrial-country and 22 LDC currencies																
1982	109.7	101.8	94.0	105.2	96.9	99.4	98.1	98.5	101.1	91.5	99.5	98.9	102.6	97.7	102.9	95.4
1983	114.9	104.6	100.4	102.0	94.4	100.6	100.8	93.1	102.1	88.2	99.5	89.2	105.1	100.3	101.9	91.0
1984	120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.9	91.3	99.8	99.0	100.5	95.8
1985	123.3	99.0	104.2	89.6	99.9	95.7	99.7	92.2	102.8	84.4	94.7	93.1	97.6	101.1	99.7	96.7
1986	106.6	94.4	127.1	80.4	104.4	104.4	103.9	88.1	107.3	85.1	101.3	96.5	107.4	107.9	97.8	96.7
1987	96.5	96.6	132.0	82.0	106.4	108.6	106.1	89.0	111.8	85.5	105.4	99.3	112.4	112.6	101.4	96.6
1987																
November	92.4	96.4	135.0	78.1	105.5	109.8	106.1	92.3	111.6	84.7	106.3	103.2	114.1	113.0	101.8	96.3
December	90.6	96.4	140.1	79.6	105.9	110.1	106.9	93.0	111.8	84.6	105.8	102.8	115.5	113.4	100.1	96.1
1988																
January	90.7	98.5	141.0	79.9	106.0	110.1	107.4	92.9	111.9	84.4	103.7	102.8	114.8	114.3	103.1	99.2
February	91.2	99.6	139.9	81.3	105.3	109.3	106.5	92.3	111.7	83.7	103.7	103.2	113.3	114.8	104.4	100.1
March	90.1	99.8	139.2	83.1	104.9	108.4	105.9	95.4	111.5	83.3	104.2	103.9	112.2	114.3	104.9	98.7
April	88.9	102.0	140.5	85.6	103.9	108.5	105.4	97.7	111.3	82.9	104.4	105.0	111.7	113.7	107.4	99.7

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colom- bia	Mexico	Peru	Vene- zuela	Hong Kong	Indo- nesia	Korea	Malaysia	Philip- pines	Singa- pore	Taiwan	Israel	Turkey
1982	77.0	113.0	97.3	105.9	82.7	105.1	110.2	101.4	111.7	101.9	105.8	106.7	100.8	98.6	108.7	96.1
1983	71.6	86.0	89.3	104.9	79.0	98.5	117.3	94.9	96.2	97.6	113.9	96.1	101.6	94.8	120.8	94.2
1984	80.2	85.7	90.1	99.6	91.9	105.8	85.9	99.5	96.0	96.5	119.6	107.9	102.5	97.1	119.5	89.6
1985	71.0	84.8	79.5	85.3	90.4	96.5	92.7	103.3	93.7	88.7	115.7	114.1	95.2	94.3	106.5	88.8
1986	60.9	74.2	68.5	67.5	65.0	96.4	85.5	93.4	70.8	75.4	94.1	89.9	79.9	68.4	100.6	70.7
1987	53.4	73.6	65.2	63.1	66.7	107.8	60.2	89.3	54.2	74.8	88.4	86.6	73.6	93.5	97.2	62.7
1987																
May	53.0	75.6	65.9	62.6	63.0	108.2	59.7	89.7	53.3	73.7	89.8	83.8	73.0	92.0	94.9	63.1
June	53.6	75.4	65.6	62.8	65.0	109.3	61.7	90.6	54.2	75.7	89.7	86.1	73.5	94.8	96.8	62.9
July	53.4	73.0	65.7	64.0	68.3	115.2	63.7	90.0	55.5	77.4	89.5	86.6	74.0	96.0	98.7	63.1
August	54.7	71.2	66.2	63.6	69.6	120.0	64.4	89.6	55.3	77.0	89.3	88.3	74.4	97.5	99.7	63.2
September	53.6	71.1	65.4	62.8	71.5	121.2	64.6	90.3	54.3	75.9	88.5	87.2	73.7	97.5	99.8	61.8
October	54.0	73.4	64.4	62.2	73.7	120.1	64.9	90.1	54.6	75.9	87.2	89.3	73.2	96.2	100.6	60.9
November	49.3	74.0	61.8	60.5	73.6	105.0	64.2	89.2	53.1	74.6	85.0	87.5	72.2	95.1	99.4	58.8
December	49.1	74.8	61.5	60.0	67.3	80.3	63.7	86.6	51.4	73.6	83.4	87.9	72.5	96.1	99.2	62.5
1988																
January	49.6	77.2	58.2	61.7	72.8	76.7	67.1	84.9	51.3	75.3	82.1	87.1	71.2	95.6	100.9	63.0
February	51.3	78.4	59.1	62.6	79.3	86.2	72.9	85.9	52.1	77.7	81.8	86.5	70.9	96.2	102.0	63.7
March	51.9	76.8	60.1	59.4	81.5	104.4	76.9	86.2	51.4	78.3	81.2	85.5	70.3	95.2	102.7	64.5
April	46.3	72.1	62.4	59.9	89.1	96.5	78.8	86.4	50.7	79.9	81.4	82.0	70.2	94.4	104.4	60.3

International banking market size

at end of period, billions of dollars

	1982	1983	1984	1985	1986	1987			
					Sep	Dec	Mar	Jun	Sep
Gross claims									
Eurocurrencies, on residents and nonresidents	2 146	2 253	2 359	2 633	3 347	3 560	3 611	3 942	4 147
On nonbanks	634	665	694	822	914	938	995	1 175	1 215
On banks	1 512	1 588	1 665	2 011	2 433	2 622	2 617	2 767	2 932
In dollars	1 694	1 797	1 894	2 101	2 381	2 534	2 602	2 753	2 882
In other currencies	452	456	465	732	966	1 025	1 209	1 189	1 265
Domestic currencies, on nonresidents	398	402	402	506	633	672	721	757	801
On nonbanks	132	140	142	187	211	209	229	236	230
On banks	266	262	260	319	422	463	492	521	571
In dollars	211	221	215	215	219	227	206	215	220
In other currencies	167	181	187	201	414	445	515	542	581
Total	2 544	2 655	2 761	3 339	3 980	4 232	4 332	4 699	4 948
On nonbanks	766	805	836	1 009	1 125	1 147	1 224	1 411	1 445
On banks	1 778	1 850	1 925	2 330	2 855	3 085	3 309	3 288	3 503
In dollars	1 905	2 018	2 109	2 316	2 600	2 761	2 806	2 968	3 102
In other currencies	639	637	652	1 023	1 380	1 470	1 724	1 731	1 846
Gross liabilities									
Eurocurrencies, to residents and nonresidents	2 165	2 278	2 386	2 846	3 384	3 579	3 651	3 999	4 205
To nonbanks	432	479	497	585	660	685	740	788	791
To official monetary institutions	91	88	96	112	110	109	125	139	151
To other banks	1 645	1 711	1 793	2 149	2 614	2 786	2 966	3 085	3 263
In dollars	1 741	1 846	1 950	2 147	2 425	2 553	2 648	2 785	2 936
In other currencies	427	432	436	699	959	1 026	1 203	1 214	1 269
Domestic currencies, to nonresidents	250	260	280	377	464	494	556	590	636
To nonbanks	70	73	80	114	121	116	134	144	134
To banks	180	187	200	263	343	377	422	436	504
In dollars	116	135	146	169	191	192	192	197	212
In other currencies	134	125	134	208	273	302	364	383	427
Total	2 418	2 538	2 666	3 223	3 848	4 073	4 407	4 579	4 843
To nonbanks	502	552	577	699	781	801	874	912	925
To banks and official institutions	1 916	1 986	2 089	2 524	3 067	3 272	3 533	3 660	3 918
In dollars	1 857	1 981	2 096	2 316	2 616	2 745	2 840	2 982	3 148
In other currencies	561	557	570	907	1 232	1 328	1 567	1 597	1 696
Net market size	1 285	1 382	1 430	1 676	1 612	1 679	2 083	2 170	2 239

International bond issues and bank credits

millions of dollars

	1985	1986	1987	1988			Jan-Mar	
				Jan	Feb	Mar	1988	1987
By country of borrower								
Industrial countries	226 711	273 653	246 758	19 094	40 209	24 002	87 515	83 305
Australia	14 407	19 251	11 349	427	828	639	3 040	1 894
Austria	2 435	3 821	4 695	1 494	836	569	1 584	2 899
Belgium	3 269	5 042	4 443	224	717	419	1 043	1 360
Canada	17 184	23 752	10 161	1 078	1 350	879	2 802	3 306
Denmark	3 589	9 813	4 774	294	628	359	2 878	1 281
Finland	1 846	3 578	3 517	90	642	779	1 191	1 511
France	18 773	20 027	16 022	3 430	2 434	2 856	5 478	8 720
Germany	3 452	12 589	10 922	286	1 438	1 338	4 820	3 061
Greece	1 567	1 361	1 462	—	—	350	110	350
Ireland	1 881	3 281	2 195	231	—	331	113	562
Italy	11 033	12 723	13 421	537	635	1 499	2 023	2 672
Japan	21 269	35 283	45 591	3 518	4 312	2 116	9 840	9 947
Netherlands	2 299	3 215	5 069	88	1 019	570	1 483	1 676
New Zealand	2 707	7 818	5 942	—	311	437	2 204	748
Norway	3 905	6 750	5 917	1 189	691	478	2 909	2 357
Portugal	2 382	2 503	2 159	161	528	—	428	689
South Africa	825	—	—	—	—	—	—	—
Spain	3 913	7 083	1 794	44	466	434	421	944
Sweden	9 890	6 000	5 766	1 120	851	1 683	2 283	3 654
United Kingdom	25 424	24 109	33 225	1 983	8 407	4 974	7 702	15 364
United States	69 193	55 703	45 412	2 847	8 692	2 748	13 698	14 286
Other*	5 447	7 950	14 920	53	5 422	546	1 465	6 022
Developing countries	32 139	23 684	26 070	1 649	1 341	2 152	4 236	5 142
Latin American countries	8 115	3 395	10 729	1 029	100	79	177	1 208
Argentina	3 700	17	2 110	—	—	—	—	—
Brazil	—	350	—	—	—	—	—	—
Chile	1 085	—	—	—	—	—	—	—
Colombia	1 052	240	137	1 000	—	—	—	1 000
Mexico	109	313	7 700	—	—	—	—	—
Venezuela	48	—	30	—	100	—	—	100
Other**	2 121	2 475	753	29	—	79	177	108
Asian countries	18 410	14 444	13 219	288	1 166	1 560	3 057	3 015
India	818	1 795	2 156	—	385	346	694	731
Indonesia	451	1 343	1 745	—	120	50	251	176
Korea	5 898	3 251	2 522	159	—	345	775	504
Malaysia	2 219	1 204	554	—	232	276	84	508
Philippines	925	—	—	—	—	—	—	—
Thailand	1 497	1 676	463	—	300	—	100	300
Other	6 602	5 174	5 778	129	123	544	1 152	796
Middle Eastern and African countries	5 613	6 044	4 122	331	75	512	1 002	918
Algeria	1 450	1 344	344	180	—	153	75	333
Nigeria	—	—	—	—	—	—	—	—
Turkey	1 203	2 754	2 831	139	75	359	628	573
Other	2 960	1 945	947	12	—	—	300	12
Eastern European countries	5 236	3 941	3 564	73	—	317	1 150	390
Hungary	1 577	1 315	1 951	—	—	317	576	317
Soviet Union	1 489	1 821	864	73	—	—	293	73
Other***	2 169	805	749	—	—	—	280	—
International organizations****	20 635	19 896	20 013	1 010	2 126	3 034	6 011	6 170
By type of instrument and currency								
International bond issues	167 756	228 106	177 291	12 344	22 612	16 908	57 703	54 182
Eurobonds	136 731	188 747	140 481	8 977	18 403	13 064	48 418	40 443
U.S. dollar	97 782	119 096	56 727	3 830	8 485	2 995	17 031	15 310
German mark	9 491	17 127	15 518	1 636	2 515	3 256	7 340	7 407
British pound	5 766	10 585	14 997	887	2 623	2 713	5 218	6 224
Japanese yen	6 539	16 516	23 116	1 154	1 152	694	8 168	2 999
European composite units	7 038	7 057	7 423	553	214	1 163	3 377	1 929
Other	10 114	16 366	22 699	916	3 414	2 244	7 284	6 574
Foreign bonds	31 025	39 359	36 811	3 367	4 410	5 932	9 285	13 709
U.S. dollar	4 655	6 782	5 911	450	250	979	1 550	1 679
German mark	1 741	—	—	—	—	—	—	—
British pound	958	394	—	—	—	—	—	—
Swiss franc	14 954	23 213	23 976	2 789	3 226	3 048	5 992	9 063
Japanese yen	6 379	5 223	3 068	—	232	1 286	981	1 517
Other	2 339	3 747	3 856	128	702	620	782	1 450
International bank credits	116 764	93 269	123 115	9 481	20 884	10 509	21 209	40 854
Eurocurrency credits	110 317	84 208	112 104	9 452	20 630	9 637	19 155	39 720
Foreign credits	6 447	9 061	11 012	29	234	872	2 054	1 135
Total	284 720	321 375	300 406	21 825	43 676	29 505	78 912	95 006

*Includes multinational organizations.

**Includes unallocated.

***Includes COMECON institutions.

****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1984	1985	1986	1987			1988			
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Eurodollar										
overnight	8.63	12.25	22.00	6.75	6.62	6.75	6.69	6.69	6.75	6.88
one month	8.38	8.00	6.50	7.06	8.25	7.06	6.69	6.69	6.69	7.00
three months	8.63	7.88	6.25	7.62	7.94	7.37	6.81	6.69	6.81	7.19
six months	9.13	7.88	6.12	7.69	7.94	7.50	6.87	6.75	7.06	7.44
twelve months	9.61	7.94	6.12	8.00	8.19	7.81	7.25	7.12	7.44	7.88
Euro-Canadian dollar										
one month	9.88	9.00	8.00	7.89	8.58	8.00	8.50	8.25	8.25	8.44
three months	10.81	9.00	8.12	8.19	9.00	8.12	8.37	8.37	8.37	8.75
six months	10.06	9.00	8.19	8.50	9.12	8.44	8.50	8.37	8.26	8.88
twelve months	10.44	9.00	8.31	8.87	9.44	8.87	8.75	8.75	9.00	9.25
Euro-French franc										
one month	10.69	12.50	10.12	9.00	9.37	8.75	7.50	7.25	7.81	8.00
three months	10.69	13.00	10.37	9.00	9.37	9.00	8.00	7.75	8.31	8.25
six months	11.00	13.13	9.75	9.00	9.37	9.25	8.25	8.19	8.44	8.38
twelve months	11.38	12.25	8.75	9.00	9.37	9.25	8.50	8.50	8.56	8.50
Euromark										
one month	5.50	4.75	5.12	3.69	3.94	3.25	3.19	3.31	3.25	3.31
three months	5.50	4.75	4.87	4.12	3.94	3.37	3.25	3.31	3.31	3.44
six months	5.56	4.75	4.81	4.25	4.06	3.50	3.31	3.37	3.37	3.63
twelve months	5.56	4.81	4.81	4.44	4.12	3.75	3.56	3.50	3.56	3.81
Euro-Dutch guilder										
one month	5.69	5.75	6.31	5.12	4.81	4.50	3.94	3.94	3.87	3.88
three months	5.75	5.75	6.00	5.25	4.94	4.62	4.00	4.00	3.87	3.94
six months	5.81	5.81	5.87	5.37	5.00	4.69	4.12	4.06	4.06	4.06
twelve months	5.94	5.88	5.81	5.44	5.12	4.81	4.37	4.12	4.19	4.19
Euro-Swiss franc										
one month	4.44	3.88	3.94	2.87	4.94	2.50	1.25	1.37	1.62	2.08
three months	4.56	4.00	3.94	3.87	4.06	3.00	1.81	1.69	1.87	2.25
six months	4.63	4.00	3.87	3.87	4.06	3.19	2.37	2.12	2.19	2.44
twelve months	4.69	4.06	3.87	3.87	4.06	3.25	2.87	2.69	2.62	2.75
Eurosterling										
one month	9.50	11.69	11.12	9.37	9.00	8.56	8.44	9.00	8.44	8.06
three months	9.88	11.81	11.12	9.44	8.94	8.81	8.69	9.31	8.56	8.31
six months	10.00	11.81	11.06	9.44	9.00	9.00	8.87	9.50	8.69	8.69
twelve months	10.19	11.69	11.06	9.50	9.12	9.31	9.25	9.75	9.00	9.06
Euroyen										
one month	6.19	7.13	4.56	4.37	4.75	4.00	4.06	4.37	4.00	3.81
three months	6.19	6.56	4.50	4.50	4.44	4.12	4.12	4.19	4.00	3.94
six months	6.13	6.50	4.37	4.50	4.37	4.12	4.12	4.19	4.12	4.13
twelve months	6.13	6.36	4.31	4.62	4.44	4.12	4.19	4.19	4.19	4.25
European currency unit										
one month	9.25	9.63	8.56	7.19	6.94	6.62	5.87	6.12	6.19	6.13
three months	9.38	9.63	8.44	7.44	7.00	6.75	6.19	6.31	6.37	6.38
six months	9.50	9.63	8.06	7.44	6.94	6.87	6.37	6.44	6.44	6.50
twelve months	9.63	9.63	7.31	7.62	7.06	7.00	6.62	6.62	6.62	6.69

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1985	1986	1987	1988						
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
Eurodollar	9.68	8.67	9.99	10.95	10.41	10.21	10.31	10.24	9.79	9.78
Euromark	6.73	6.62	6.82	6.87	7.04	6.74	6.69	6.54	6.27	6.33
Swiss franc	5.49	5.70	5.43	5.50	5.83	5.56	5.71	5.57	5.66	5.61
European governments										
Eurodollar	10.52	9.91	11.41	11.81	11.63	11.83	11.84	11.48	11.38	11.50
Euromark	7.03	6.77	6.66	6.76	6.81	6.61	6.21	6.23	6.07	6.06
Swiss franc	4.91	4.51	4.38	4.39	4.54	4.15	4.11	4.05	3.71	3.88
European currency unit	10.23	10.20	10.43	10.46	11.10	11.06	10.84	10.85	10.56	10.35

Central bank discount rates

at or near end of month

	1984	1985	1986	1987	1988				Current	
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May 4 1988	effective since
United States	8.00	7.50	5.50	6.00	6.00	9.00	6.00	6.00	6.00	Sep 24, 87
Canada	10.09	9.49	8.47	8.66	8.62	8.57	8.78	9.12	9.12	Apr 28, 88
Austria	4.50	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	Dec 3, 87
Belgium	11.00	9.75	8.00	7.00	6.75	6.75	6.50	6.50	6.50	Mar 3, 88
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 88
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.50	4.00	3.50	2.50	2.50	2.50	2.50	2.50	2.50	Dec 3, 87
Ireland	14.00	10.25	13.25	9.25	9.25	9.25	9.25	8.50	8.50	Apr 11, 88
Italy	16.50	15.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	Aug 28, 87
Netherlands	5.00	5.00	4.50	3.75	3.75	3.25	3.25	3.25	3.25	Feb 5, 88
Portugal	25.00	19.00	16.00	14.50	14.50	14.00	14.00	14.00	14.00	Feb, 88
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	9.50	10.50	7.50	7.50	7.50	7.50	7.50	8.50	8.50	Apr 29, 88
Switzerland	4.00	4.00	4.00	2.50	2.50	2.50	2.50	2.50	2.50	Dec 4, 87
United Kingdom	9.38	11.31	10.81	8.37	8.37	8.87	8.37	7.88	7.88	Apr 7, 88
Japan	5.00	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	13.50	19.80	24.60	18.55	18.05	18.20	17.80	19.70	20.30	May 4, 88
South Africa	21.75	13.50	10.00	9.50	9.50	9.50	9.50	9.50	9.50	May 18, 87
Argentina*	18.19	5.00	11.19	17.59	15.71	16.71	18.38	n.a.	18.38	Mar, 88
Korea	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	12.11	11.50	9.84	9.25	n.a.	n.a.	n.a.	n.a.	n.a.	
Singapore	6.75	5.00	5.00	5.00	5.00	3.50	3.50	n.a.	3.50	Feb, 88
Thailand	10.97	11.00	8.00	8.00	8.00	n.a.	n.a.	n.a.	8.00	Sep 1, 86
Venezuela	11.00	12.94	12.79	12.49	n.a.	n.a.	n.a.	n.a.	12.98	Nov, 87

*Percent per month.

Day-to-day money rates

monthly averages

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	8.38	8.27	6.91	7.22	7.29	6.89	6.77	6.83	6.56	6.56	6.87
Canada	10.50	9.23	8.28	8.80	8.41	8.16	8.40	8.44	8.41	8.45	8.38
Austria	7.63	7.25	7.62	4.12	4.60	4.20	4.10	4.50	3.50	3.50	n.a.
Belgium	9.12	6.60	5.09	5.24	4.34	5.44	5.09	5.02	4.16	5.45	5.14
Finland	15.07	11.99	11.97	11.00	11.00	11.00	11.00	11.00	11.00	11.00	n.a.
France	10.95	9.02	7.80	7.36	7.89	8.67	8.23	7.80	7.26	7.54	7.55
Germany	5.62	4.64	5.00	3.71	3.74	3.55	3.19	3.13	3.32	3.34	3.23
Ireland	14.50	9.62	13.00	8.75	6.50	8.50	7.50	8.00	8.50	8.25	n.a.
Italy	17.25	14.75	11.42	11.70	10.90	10.25	10.25	10.60	9.87	10.14	9.95
Netherlands	5.60	5.75	6.19	4.75	5.19	4.44	4.25	4.12	3.87	3.94	4.00
Norway	12.50	12.50	14.00	14.00	13.80	13.68	14.02	13.88	n.a.	n.a.	n.a.
Spain	12.18	9.92	11.76	17.45	16.22	14.60	14.02	13.20	12.13	11.40	n.a.
Sweden	11.88	11.83	8.89	8.57	8.42	8.97	8.43	8.75	9.37	8.95	10.15
Switzerland	1.50	2.00	1.12	1.37	1.25	1.50	0.50	0.50	1.00	1.25	2.13
United Kingdom	6.31	9.72	9.19	9.72	9.68	9.13	7.60	8.26	8.28	8.55	8.13
Australia	10.98	18.37	15.40	11.58	10.77	10.90	10.37	10.23	10.26	10.33	n.a.
Japan	6.41	8.02	4.18	3.39	3.37	3.39	3.81	3.54	3.39	3.53	3.26
South Africa	21.13	12.50	8.50	8.45	8.64	8.45	9.76	9.75	9.25	9.85	10.00
Argentina*	17.75	4.50	7.00	12.50	9.00	9.80	14.90	16.40	14.90	17.60	18.18
Brazil	272.02	352.23	83.05	150.10	150.10	329.33	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	6.80	6.10	3.90	3.67	4.92	1.90	0.56	0.58	1.83	2.84	3.64
Korea	10.00	8.80	9.00	9.50	10.00	8.70	8.80	n.a.	n.a.	n.a.	n.a.
Philippines	15.22	15.03	9.92	16.50	12.94	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	6.01	4.53	3.51	2.52	3.55	3.40	2.57	2.73	2.93	3.01	n.a.
Taiwan	8.07	4.50	4.00	4.21	3.67	3.57	4.56	5.11	5.52	n.a.	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1984	1985	1986	1987				1988			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	8.12	7.28	5.83	6.81	5.41	5.79	5.84	5.80	5.78	5.87	6.15
Canada	9.84	9.24	8.22	9.35	7.84	8.31	8.41	8.37	8.32	8.53	8.87
Belgium	10.90	9.89	7.50	6.74	7.25	6.95	6.84	6.44	6.24	6.18	6.18
Ireland	15.10	11.15	13.60	8.93	8.80	9.10	8.69	8.34	8.76	8.33	7.83
Italy	14.69	13.10	10.00	11.78	11.98	12.06	11.66	11.37	10.78	10.78	n.a.
Netherlands	5.88	5.69	6.37	5.62	5.50	5.25	4.95	4.75	4.25	4.12	4.38
Spain	12.27	9.52	8.37	6.73	8.23	6.78	6.67	5.56	5.83	10.17	n.a.
Sweden	11.83	12.49	9.20	9.30	9.49	9.20	9.05	9.20	9.32	9.58	10.70
United Kingdom	9.33	11.49	10.79	10.02	9.07	8.67	8.38	8.38	9.01	8.26	7.96
Australia	12.27	19.40	14.91	11.09	10.47	10.34	10.06	9.92	10.44	9.83	10.40
Japan	4.91	4.91	2.89	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	13.50	17.62	19.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	21.94	12.90	8.84	8.72	8.68	8.64	8.85	9.49	9.55	10.51	10.97
Brazil	273.03	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	48.67	72.98	104.03	95.47	96.43	110.67	133.04	155.67	153.66	84.46	53.07
Philippines	47.14	16.45	9.55	12.60	12.97	13.18	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	2.91	2.94	2.10	3.26	3.57	3.69	3.23	2.92	2.97	2.97	3.08

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1984	1985	1986	1987				1988			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	8.49	8.02	6.64	7.94	7.58	7.80	7.21	6.90	6.77	6.90	7.20
Canada	10.00	9.40	8.35	9.55	8.50	8.70	8.90	8.65	8.55	8.65	8.94
Belgium	10.85	9.89	7.60	6.79	7.35	7.15	6.95	6.54	6.34	6.24	6.24
France	10.69	9.12	8.37	7.87	8.25	8.62	8.56	8.06	7.44	8.25	7.88
Germany	5.75	4.80	4.85	4.55	4.10	3.80	3.65	3.23	3.28	3.40	3.55
Ireland	15.13	12.00	14.06	9.94	9.25	9.19	8.81	8.62	8.94	8.38	8.13
Italy	16.88	15.13	11.37	12.37	12.00	11.62	11.50	10.75	11.13	11.13	10.38
Netherlands	5.75	5.75	6.19	5.62	5.25	4.94	4.56	4.32	4.06	4.06	4.13
Portugal	24.57	20.71	16.07	14.79	14.66	14.19	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	12.21	10.51	11.79	16.86	15.84	14.44	13.59	12.30	12.01	11.06	n.a.
Switzerland	5.00	4.75	4.50	4.25	4.06	4.06	3.56	1.89	1.81	1.88	2.13
United Kingdom	9.88	12.75	11.25	10.10	9.19	8.87	8.94	8.31	9.38	8.56	8.31
Australia	12.90	19.75	15.10	11.20	12.15	12.00	11.25	10.85	10.93	11.43	11.56
Japan	6.33	7.03	4.34	3.84	3.88	3.90	3.90	3.85	3.80	3.80	3.75
New Zealand	15.00	20.00	24.25	18.90	20.30	16.90	17.70	17.00	17.35	n.a.	17.20
South Africa	22.78	13.35	8.55	8.90	8.90	8.50	8.90	9.60	10.25	10.90	11.65
Chile	20.68	22.42	19.56	26.82	31.37	34.49	15.25	11.35	10.69	21.41	20.84
Hong Kong	8.25	6.50	4.62	6.37	6.19	4.06	1.50	3.00	3.87	4.12	5.13
Indonesia	19.00	15.00	19.50	18.75	17.37	17.50	17.50	17.00	18.50	22.50	18.50
Korea	8.00	8.00	8.00	7.50	7.50	7.50	7.50	n.a.	n.a.	n.a.	n.a.
Malaysia	10.30	8.20	6.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	33.21	14.61	8.31	11.15	11.81	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	7.00	5.88	3.94	4.75	4.50	4.00	3.25	3.13	n.a.	n.a.	n.a.
Taiwan	7.85	4.10	3.67	3.92	3.23	3.13	3.09	4.12	4.47	n.a.	n.a.

Commercial bank deposit rates

at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	8.34	7.72	6.26	8.00	7.40	7.72	7.10	6.67	6.57	6.69	7.05
Canada	10.05	9.40	8.15	9.90	8.45	8.57	8.40	8.50	8.45	8.60	9.00
Austria	7.50	6.50	5.50	4.60	4.75	4.45	4.25	4.40	4.05	3.90	n.a.
Belgium	10.63	9.63	7.44	6.56	6.60	6.66	6.69	6.31	6.25	6.19	6.00
Denmark	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.25	4.40	4.80	3.90	3.90	3.70	3.50	3.20	3.20	3.25	3.40
Ireland	14.63	11.87	13.75	9.00	8.62	9.12	8.82	8.50	8.75	8.25	n.a.
Italy	11.84	13.21	10.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	9.50
Netherlands	5.69	5.81	6.06	5.50	5.12	4.81	4.50	4.21	3.94	4.00	4.06
Norway	12.75	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	28.00	20.00	15.00	14.50	14.00	14.00	14.00	14.00	13.50	13.50	13.50
Spain	11.64	9.64	8.67	9.02	9.11	9.32	9.48	9.39	9.30	n.a.	n.a.
Sweden	11.45	12.18	9.93	9.70	9.70	9.70	9.45	9.55	9.55	9.95	10.95
Switzerland	4.50	4.50	4.25	4.00	3.81	3.81	3.37	1.44	1.56	1.83	1.88
United Kingdom	9.68	11.75	11.19	10.00	9.12	8.81	8.81	8.75	9.25	8.37	8.13
Australia	12.75	18.80	15.56	12.14	11.25	12.28	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	6.38	7.04	4.55	4.45	4.63	4.46	4.42	4.33	4.41	4.38	4.25
New Zealand	15.25	19.98	23.50	18.75	19.85	18.65	16.85	16.00	n.a.	14.60	15.50
South Africa	22.68	13.20	8.65	9.35	9.35	9.30	10.25	11.20	11.90	11.90	n.a.
Argentina*	31.23	5.40	8.41	18.20	9.10	8.92	14.00	15.12	14.30	17.10	18.10
Brazil	27.00	18.00	220.00	11.00	14.00	15.00	17.50	n.a.	n.a.	n.a.	n.a.
Chile	20.68	23.60	20.98	26.83	30.30	31.53	14.84	11.75	9.25	19.84	17.73
Hong Kong	8.25	6.50	4.62	6.37	6.19	4.08	1.50	3.00	3.87	4.12	5.13
Korea	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.	n.a.	n.a.	n.a.
Malaysia	9.58	7.00	6.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	47.45	72.90	94.30	94.20	94.20	103.74	120.35	118.99	118.80	81.86	43.20
Philippines	31.01	12.34	7.75	8.79	8.58	9.50	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	6.13	5.26	4.00	4.62	4.31	3.69	3.13	3.06	n.a.	n.a.	n.a.
Taiwan	6.50	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	n.a.	n.a.
Venezuela	12.50	6.00	6.00	8.94	8.92	8.95	8.95	8.97	8.94	n.a.	n.a.

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	11.61	9.49	7.79	9.80	9.04	9.10	8.95	8.42	8.39	8.82	9.07
Canada	11.66	10.04	9.23	11.14	10.21	10.50	10.34	9.74	9.61	10.13	n.a.
Austria	8.03	7.61	7.33	7.00	7.26	7.13	6.89	6.83	6.80	6.71	n.a.
Belgium	11.56	9.60	7.70	8.14	8.32	7.98	8.04	7.58	7.38	7.72	7.72
Denmark	14.60	9.67	11.70	12.59	12.56	11.84	12.05	11.18	10.91	11.22	n.a.
Finland	10.73	10.58	7.80	7.83	7.77	7.64	7.67	7.40	7.40	7.41	n.a.
France	12.70	11.33	9.89	11.08	10.95	10.46	10.57	9.73	9.33	9.61	n.a.
Germany	7.17	6.57	6.25	6.86	6.62	6.46	6.51	6.50	6.28	6.30	6.47
Ireland	14.90	11.84	12.97	11.30	11.05	10.23	10.45	10.61	10.41	10.12	n.a.
Italy	14.52	13.66	10.05	11.30	11.41	11.25	10.50	10.29	10.30	n.a.	n.a.
Netherlands	7.72	6.96	6.40	6.81	7.05	6.37	6.32	6.17	5.99	6.01	6.21
Norway	12.00	13.00	13.24	12.78	12.69	12.88	13.11	13.07	n.a.	n.a.	n.a.
Portugal	22.23	16.64	14.49	15.50	15.30	15.60	14.80	n.a.	n.a.	n.a.	n.a.
Spain	13.93	12.52	10.36	14.26	14.24	13.34	13.14	12.48	11.91	11.82	n.a.
Sweden	12.04	12.11	10.66	12.02	11.42	11.51	11.39	11.30	10.96	11.05	11.41
Switzerland	4.80	4.42	4.05	4.33	4.12	3.86	3.95	3.94	3.93	4.08	3.95
United Kingdom	10.25	10.35	10.17	9.85	9.22	9.23	9.47	9.26	9.10	8.96	9.14
Australia	13.50	14.85	13.40	12.50	13.65	13.30	12.85	12.40	12.30	11.90	11.54
Japan	6.47	5.92	4.61	5.72	4.58	5.00	4.88	4.23	4.36	4.43	n.a.
New Zealand	16.90	17.00	16.00	15.55	15.70	14.90	14.30	14.00	13.30	13.08	n.a.
South Africa	16.55	18.09	15.06	15.12	15.44	15.30	15.70	16.80	16.52	16.60	16.51
Philippines	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.
Venezuela	14.00	12.00	12.00	12.50	12.50	12.50	12.50	n.a.	n.a.	n.a.	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1984	1985	1986	1987				1988			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	10.75	9.50	7.50	8.75	9.00	8.75	8.75	8.50	8.50	8.50	8.50
Canada	11.25	10.00	9.75	10.00	9.75	9.75	9.75	9.75	9.75	9.75	10.25
Austria	9.25	9.00	9.00	8.60	8.50	8.50	8.25	8.25	8.25	8.25	n.a.
Belgium	14.00	11.50	9.75	8.75	8.75	8.75	8.75	8.75	8.50	8.50	8.50
Denmark	10.50	8.50	8.00	9.50	9.50	9.50	9.50	9.50	9.50	9.50	n.a.
Finland	10.68	10.37	8.81	8.95	8.97	9.02	8.99	9.03	9.05	n.a.	n.a.
France	12.00	10.80	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.25	6.75	6.25	6.25	6.25	6.25	6.00	6.00	6.25	6.25
Ireland	15.75	12.50	15.75	12.00	12.00	12.00	11.50	11.50	11.50	11.50	11.25
Italy	18.00	15.88	13.00	13.00	13.00	13.00	13.00	12.50	12.62	12.62	12.63
Netherlands	6.25	6.25	7.12	5.62	5.50	5.25	4.87	4.62	4.06	4.12	4.19
Norway	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	29.00	22.50	17.50	19.50	18.50	18.50	18.50	18.50	18.00	18.00	18.00
Spain	15.84	14.75	14.22	16.69	16.48	16.38	16.34	16.10	15.76	15.42	n.a.
Sweden	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	8.00	8.00	5.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	9.50	11.50	11.00	10.00	9.50	9.00	8.50	8.50	9.00	8.50	8.00
Australia	14.00	21.00	18.50	14.50	14.00	13.75	14.00	13.50	13.50	13.50	n.a.
Japan	5.50	5.50	3.75	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.38
New Zealand	14.00	21.00	23.00	21.00	22.50	19.75	18.75	18.75	n.a.	n.a.	n.a.
South Africa	24.00	18.50	12.00	12.50	12.50	12.50	12.50	13.00	13.00	14.00	14.00
Argentina*	32.05	7.30	11.30	20.00	9.80	9.98	14.80	15.80	15.00	17.60	17.92
Brazil**	31.00	19.00	250.00	15.00	18.00	18.00	19.50	n.a.	n.a.	n.a.	n.a.
Chile	60.82	33.34	29.13	33.12	37.33	40.20	30.99	21.22	20.51	25.49	31.84
Hong Kong	11.00	7.00	6.50	7.50	6.50	6.00	5.50	5.25	6.00	6.00	6.50
Indonesia	23.50	18.75	19.75	22.00	21.00	20.50	20.50	20.50	20.50	20.50	21.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	n.a.	n.a.	n.a.	n.a.
Malaysia	12.00	10.50	10.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	47.54	85.66	95.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	44.00	15.00	10.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	9.40	7.20	6.10	6.10	6.10	6.10	6.10	5.98	5.93	5.85	n.a.
Taiwan	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	n.a.	n.a.
Venezuela	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	n.a.	n.a.

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987				1988			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	12.25	10.15	8.88	10.75	10.25	10.30	9.90	9.38	9.45	9.85	10.25
Canada	12.42	10.74	10.18	11.81	11.22	11.32	11.00	10.55	10.20	10.55	10.97
France	12.94	11.76	10.18	11.07	11.28	10.96	10.92	10.38	9.91	10.03	n.a.
Germany	7.20	8.90	6.50	6.80	7.00	6.70	6.70	6.70	6.70	6.60	6.60
Netherlands	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Spain	18.32	14.92	13.40	17.39	17.93	17.08	16.15	15.79	14.68	14.78	n.a.
Sweden	12.33	13.25	11.99	n.a.	12.78	12.36	12.31	12.20	11.83	11.94	12.20
Switzerland	5.09	4.93	4.72	4.72	4.67	4.65	4.60	4.50	4.39	4.39	4.29
United Kingdom	11.64	11.47	11.71	11.43	10.75	11.11	11.11	10.76	10.82	10.66	10.55
Japan	7.10	6.79	5.93	6.08	5.95	5.59	5.32	5.06	5.03	4.99	n.a.
Korea	15.00	13.60	12.80	12.80	12.80	12.80	12.80	12.80	n.a.	n.a.	n.a.
Venezuela	18.00	17.00	17.00	18.00	18.00	18.00	18.00	n.a.	n.a.	n.a.	n.a.

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U.S. Social Security surpluses: pitfall or opportunity?, 1

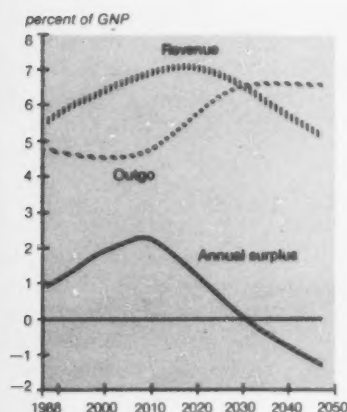
- Evolution of Social Security, 2
- The need for surpluses, 3
- Policy courses to avoid, 4
- Saving for investment:
the bottom line, 7
- Investing the surplus, 8
- Financial market implications, 9

Controlling Social Security and Medicare, 11

Statistical appendix, 13

Chart 1

The Social Security surplus*



*Projections by Social Security trustees based on current law and intermediate demographic and economic assumptions (variant IIB). Both revenue and surplus include interest earned on the trust funds.

U.S. Social Security surpluses: pitfall or opportunity?

The burgeoning surplus of the U.S. Social Security system has come to the fore this year as the latest temptation to procrastinate on decisive measures to cut the federal budget deficit. Under current law, the system surplus should rise from a projected \$37 billion in the current fiscal year to almost \$500 billion by 2015 — over 2% of GNP at that time (see Chart 1). More immediately, the projected \$25 billion increase in the surplus between FY1987 and the new fiscal year beginning this October more than accounts for the \$15 billion narrowing expected over the period in the federal budget deficit (unified basis). Further, the increase in the Social Security surplus alone should provide more than one-third of the \$150 billion budget deficit reduction targeted by FY1993 under the Gramm-Rudman-Hollings (GRH) legislation.* Beyond FY1993 — assuming GRH compliance — there should

be a large and growing budget surplus (see Table 1). That alluring prospect, so different from today's dreary deficit reality, already is inspiring some members of Congress to rush forward new spending schemes.

The Social Security outlook is not the only source of complacency on the budget issue. April's drop in the U.S. trade deficit, to below \$10 billion CIF, plus the upgrading of mainstream forecasts for U.S. real GNP growth this year, to above 3.5%, suggest that the external imbalance is on its way to correction with no sacrifice of growth. To date, growth and trade adjustment also have been consistent with a fairly stable underlying inflation rate since the economy's resources have not been unduly pressured. Now, however, the combination of strong external and domestic demand has brought the economy close to full employment and full capacity utilization in a number of sectors. From here on, substantial further trade correction, which will have to be mainly export-driven, requires domestic demand re-

*The GRH targets are based on the "unified" budget — that is, they include the "off-budget" expenditures and receipts of the Social Security system, as well as "on-budget" items such as defense, income taxes, and Medicare.

Table 1

Social Security and the Gramm-Rudman-Hollings federal budget targets
billions of dollars

Fiscal years	Balances		
	Target, unified basis	Social Security	Implied on-budget
1987	-150	20	-170
1988	-144	37	-181
1989	-136	44	-180
1990	-100	54	-154
1991	-84	82	-126
1992	-20	70	-90
1993	0	78	-78
1996	120	120	0*

*Assumes the 1989-93 trend in on-budget cuts continues.

straint to free up resources.

The financial markets plainly crave enlightenment on just how the next Administration and Congress will seek to remedy the twin deficits within the next presidential term. The burden cannot be off-loaded onto the Federal Reserve, for while monetary restraint can in principle force down the trade deficit, it would be at the cost of economic growth and employment. Instead, as detailed in the last issue of this publication,* the constructive answer lies through resolute fiscal action, assisted if need be by easier monetary policy to keep the dollar competitive. This course would make room, and provide the incentive, for noninflationary trade correction.

In light of the twin deficit connection, the temptation to squander the looming Social Security surpluses for immediate gain must be strenuously resisted. That the temptation is strong is apparent from the pressure for increased spending, notably on "Medicare" health insurance for the elderly. Yet the federal budget already is absorbing almost half of net private savings, leaving net domestic saving at an average of just 3% of GNP in the 1980s so far, and an improvident 1.9% in 1987. To splurge on Medicare or otherwise fall short of the GRH budget targets would leave the savings shortfall unattended, plunge the nation deeper into foreign debt, heighten financial risks, and undermine U.S. standing around the world.

Longer term, the path of profligacy would defeat the whole purpose of Social Security. Spending the surplus would leave the U.S. economy underinvested and

ill-prepared to face the massive retirement and health care burden that will arise in the 21st century as today's baby-boom generation exits from the workforce. Social Security would turn out to be a mere paper promise.

Instead, with careful husbandry, Social Security surpluses present an unequalled opportunity to boost the U.S. net savings and investment rates, perhaps to as much as 8% of GNP—a level not achieved since the mid-1960s but necessary to provide for the future prosperity of both retirees and the working population (see Table 2). This requires compliance with the GRH targets, effective containment of Medicare entitlements (especially for future beneficiaries), and productive investment of Social Security surpluses. A partial privatization of the Social Security system could help, lest the incipient surpluses be frittered away or mismanaged. Wisely handled, Social Security surpluses could make a dramatic difference for U.S. economic prospects. Higher domestic saving not only would help eliminate the trade and current account deficits, and the associated dependence on foreign saving, but also would build up the nation's productive capital stock. That is the only convincing assurance of retirement security.

Evolution of Social Security

The U.S. Social Security system has had a turbulent history of changing priorities. Launched in 1935 as a narrowly defined pension and insurance plan, it was placed outside the budget and its receipts were supposed to be held in trust for future beneficiaries. Thus, like a private pen-

Table 2

The payoff from saving

	Net domestic saving, percent of GNP	Real GNP growth per capita, percent per annum
Actual, 1980-87	3.1	1.3
Projected, 2000-2020		
Official projection*	6.0	1.4
Optimal policy**	8.5	2.0

*Implied by intermediate growth assumptions of the Social Security trustees.

**GRH compliance, Medicare solvency, and productive investment of Social Security surpluses.

*"Reducing the twin U.S. deficits," *World Financial Markets*, 1988 Issue 2.

Chart 2

Payroll tax rates

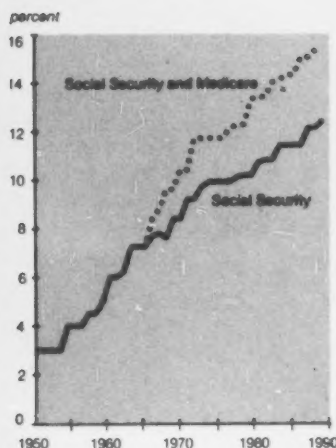
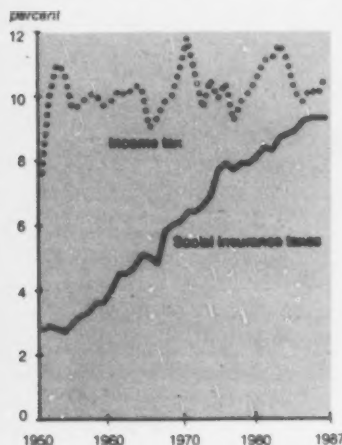


Chart 3

Average personal tax rates*



*Collections divided by personal income. Social insurance taxes include Social Security and Medicare, as well as contributions to the federal employee retirement funds.

sion plan, the system was to pay contributors a fair rate of return and be fully funded.

Almost from its inception, however, the system was changed to a "pay-as-you-go" basis, with current workers' tax payments funding the benefits of retirees. The switch reflected broadened objectives. First, to preclude fiscal drag, it was decided that funds drawn out of the economy should be immediately returned to the spending stream. Second, benefits were extended to many who had not contributed, including the first generation of retirees who were "grandfathered" into the system. Thereafter, over time, benefits were extended to many workers not initially covered, to the disabled, and to a variety of dependents; retirement eligibility rules were loosened; and, in 1972 benefits were indexed to the cost of living. In addition, 1966 saw the introduction of "Medicare" health insurance, which is closely associated with Social Security in its means of financing and beneficiary class but is treated separately for budgetary purposes.

Social Security and Medicare payroll taxes under the Federal Insurance Contributions Act (FICA) have increased in step with benefits. The original law called for a tax on wage and salary income of 1% each on employee and employer. Today, the employee tax is made up of a 6.06% tax for Old Age Survivors and Disability Insurance (OASDI) and 1.45% for Medicare, with the employer contributing a like amount to yield a total tax rate of 15.02% (see Chart 2). Moreover, the payroll tax base has been steadily increased, with levies on labor income up to a ceiling currently set at \$45,000 per annum — a

near-sixfold increase since 1970. Altogether, the system's expansion has meant that the payroll tax now generates nearly as much revenue as the federal income tax (see Charts 3 and 4), while Social Security and Medicare outlays exceed the defense budget.

Amid the current reports of growing surpluses it is easy to forget that the system was close to bankruptcy five years ago. The rapid expansion of benefits and taxes proved workable as long as the labor force was growing relative to the overall population and the economy was robust. By 1981, however, the slowdown in the economy and the pickup in inflation had cut payroll tax collections sharply relative to outlays. As a result, the OASDI trust funds had fallen to the brink of insolvency.

The system was rescued in 1983 through a series of reforms proposed by a special commission headed by Alan Greenspan. The Greenspan Commission recommended a mix of benefit cuts and revenue enhancements. On the revenue side, the payroll tax was increased — it will reach 15.3% by 1990 — and half the benefits were made taxable for middle- and upper-income recipients. On the expenditure side, the annual cost-of-living increase was permanently delayed by six months and the retirement age for full benefits was set to rise to 67 by the year 2027. These adjustments have led to the current surpluses.

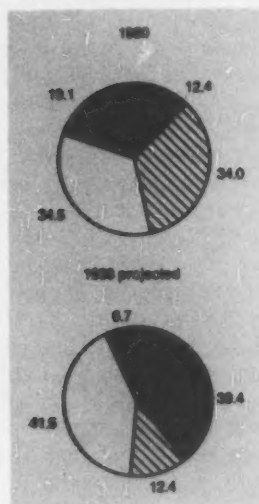
The need for surpluses

The Greenspan reform not only put the system back on its feet, but also aimed to keep it solvent for the next 75 years. The system

Chart 4

Shares of gross federal receipts*

percent of total



- Social insurance
- ▨ Corporate profits
- Personal income tax
- Other

*NIPA basis.

Table 3

Social Security surpluses
percent of GNP

	1980-85	1986
United States	0.1	0.5
Canada	0.8	0.6
Japan	2.8	2.8
Germany	0.2	0.5
France	0.4	-0.3
Italy	0.1	0.1
United Kingdom	0.1	0.1
Denmark	1.2	1.4
Sweden	2.9	2.5*

*1985.

Source: OECD.

has moved away from the pay-as-you-go basis on which it had previously relied and on which other industrial countries with a few exceptions continue to rely (see Table 3). While most of the U.S. payroll tax will continue to support current retirees, a growing portion will be accumulated as reserves of the Social Security trust funds. By 2030, under current law, the accumulated reserves could reach almost \$12 trillion. Thereafter, they would run down to the point of exhaustion around mid-century.

The need for these reserves stems from powerful demographic forces shaping the long-term U.S. outlook. Early in the next century, the labor market will be squeezed from two directions: not only will the retired population swell as baby boomers reach retirement age, but the working population will shrink as the "baby-bust" generation begins to dominate the labor force. As a result, the ratio of retirees to working age population will almost double (see Chart 5). In the period 2010 to 2030 Social Security outlays will grow 40% faster than the payroll tax base.

Social Security may be likened to a benevolent "Ponzi" (pyramid) scheme. Each new generation pays for the older generation's retirement, relying on subsequent generations to do the same. Furthermore, each generation receives more than it pays in as long as the newer groups are willing to "up the ante." But any pyramid scheme will unravel if the pool of contributors fails to expand sufficiently fast. This could well be the case with Social Security. Chart 6 shows how the share of the adult U.S. population in various age groups is expected to evolve over time. This population

pyramid shows an increasingly top-heavy structure as the prime-age population (aged 25-54) shrinks relative to the older population.*

The system differs from the classic Ponzi scheme in one important respect, the enforcement mechanism. Sheer voting power will tend to ensure that the older generation can enforce the contract implicit in Social Security. Even so, to support the top-heavy population structure in prospect, the Social Security system itself needs a credible prop. That is the essential function of the surpluses programmed by the Greenspan reform.

Policy courses to avoid

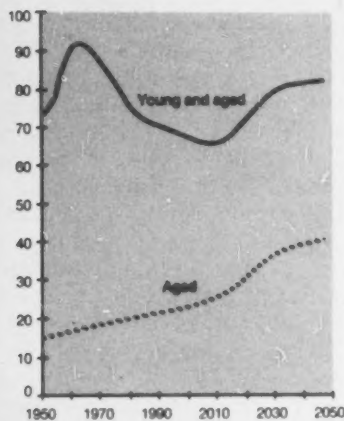
Inasmuch as Social Security surpluses are set to siphon off increasing amounts of spending power, they pose at least a theoretical risk of "fiscal drag." Critics of the surpluses go so far as to warn that the surpluses could cripple the economy, and thus be self-defeating.

In fact, the fiscal drag allegation is a red herring that can only distract policymakers from the real issues. The seemingly huge numbers involved are actually quite small when put in proper context. Although the surplus could climb as high as \$500 billion in 2015, it would represent

*In principle, increased immigration could offset the decline in the prime-aged population. But unless the immigration is specially tailored to highly productive, young workers, it is unlikely to help much. Estimates in the Greenspan report suggest that an additional 100,000 immigrants per year would strengthen the long-run balance of the system by 0.1% of the taxable payroll. To make a significant dent in the Social Security problem would require more than doubling immigration — legal and otherwise — to over 1.5 million per year. At this rate most U.S. population growth would be due to immigration.

Chart 5

**Young and aged
as percent of working-age
population***



*Young, age 0-19; aged, 65+; working-age, 20-64

only 2.1% of that year's GNP. To be sure, if the on-line federal budget is balanced at that time, the cumulative tightening of the federal position would amount to some 5.5% of GNP relative to the current stance. In determining the possible drag on GNP growth, however, the cumulative change in the fiscal position is less important than the annual change. The annual change associated with the Social Security trend would never exceed 0.2% of GNP, far short of the approximately 0.9% annual cuts required to meet the GRH targets. Besides, any short-run difficulties in recycling the surplus can be overcome with a proper mix of monetary policy and investment incentives. Furthermore, the government still would be free to use temporary deficits in the on-line budget to counter swings in the economy.

Although the fiscal drag related to Social Security poses no serious risk to the economy, it does help justify politically motivated "solutions" to the surplus. Three proposals have been made: the surplus could be used to fund higher government spending, pay for the growth in Medicare, or cut the payroll tax. These solutions would eliminate the fiscal drag problem but ultimately would jeopardize the Social Security system and the future health of the economy.

The politically tempting solution also would be the most damaging. As the surplus accumulates over the next twenty years, Congress could give in to pressure to fund new, more generous benefits. This use of the surplus could drive the average replacement rate — the ratio of benefits to previous income — almost 30% higher than under the current policy.

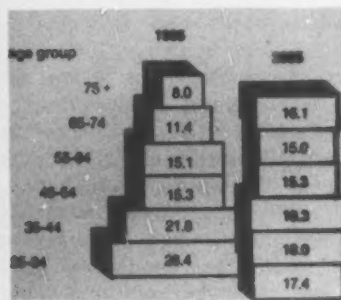
Such a benefit binge, however, would create unmanageable problems once baby boomers begin retiring around 2010. Conceivably, balance could be restored at that time by cutting outlays. This would require not only rescinding the assumed benefit increases of the next twenty years, but also lowering replacement rates below those enjoyed by the generation retired today. The sheer voting power of the baby-boom cohort makes this an unlikely outcome. The more likely policy response would be a mix of unpalatable alternatives: jacking up the payroll tax as much as eight percentage points (see Chart 7) or running outside deficits.

At the extreme, suppose that that GRH mandate is not carried out; the Social Security surplus is used to fund a benefit binge or other programs which become built into the system; and no efforts are made to reform Medicare. The consequential rise in borrowing could absorb more than half of net private saving by 2010, with both the on-line budget and the Medicare trust fund in deficit (see Table 4). Twenty years later, the situation would be out of control: in the absence of new taxes or spending cuts the government deficit actually could exceed private saving.* With the labor force stagnant and no net investment,

Chart 6

The population "pyramid"

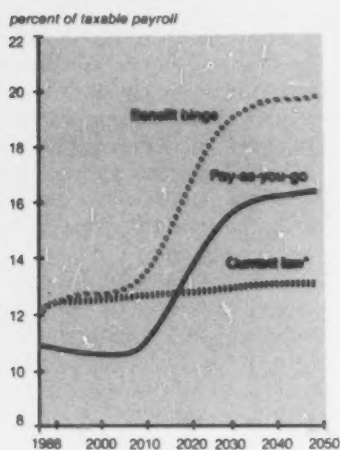
percent of population aged twenty-five and over



*For simplicity, these projections assume that, over a long period, there are no sustained capital inflows or outflows and that net private saving continues at its historical rate of about 6%. In reality, saving patterns are sensitive to demographic changes. Baby boomers, who are now entering their thirties and forties, are prone to save more as they leave behind the initial cost of forming new households and begin to prepare for their children's education and their own retirement. Most of the increase in saving by baby boomers, however, is likely to be offset by the reduced saving of a growing number of retirees.

Chart 7

Social Security revenue requirements



*Includes a small flow of revenue from the income tax on benefits.

real GNP growth could grind to a halt.

Awareness of this long-term peril probably will keep the United States from adopting so profligate a course. Even so, the presence of a rising Social Security surplus is prone to spawn compromises falling short on the implicit GRH target for the on-line accounts. Already, Congress has been considering a number of proposals for expanding Medicare (see next article) and will be tempted to use the Social Security surplus to fund them. The outcome might leave the unified budget in deficit by \$50 billion or so in FY1993, deferring elimination of the deficit till near the end of the decade and achieving at best modest surpluses during the early years of the next century.

Such a policy of borrowing from Peter's savings to pay Paul's medical bills would create almost the same financing problems as a benefit binge. Were growth in Medicare outlays to exceed current-law projections by 2.2 percentage points annually over the next fifteen years, and were such growth to be financed

by the retirement fund, the combined systems would start accumulating deficits with a vengeance beyond 2010. New higher medical bills would pile on top of unfunded retirement benefits, burying the relatively small number of taxpayers. By 2020 the combined shortfall would reach 3% of GNP, rise to 4% in 2040, and further accelerate beyond (see Chart 8). Economic growth might not cease, but would provide little scope for continued improvement in living standards.

Rather than spend the Social Security surplus, a third proposal would be to return to the old pay-as-you-go system, cutting the payroll tax to avoid accumulating a surplus. By 2010, when the demands on the system begin to escalate, the payroll tax could be increased step-for-step. The cumulative increase to cover retirement benefits could be as much as 6 percentage points. Were the tax also increased to expand Medicare entitlements, the tolerance of the working population would be sorely strained.

It would be a serious mistake to defer until the next century the hard budget choices necessary to deal with the retirement and health care burden. Spending cuts or tax increases then would have to be undertaken amid slowing economic growth, thanks to drastically reduced labor force growth (see Table 5). Middle-of-the-road estimates by the Social Security Administration show labor force growth declining from a current rate of 1.5% to about 0.5% in 2010. That could depress real GNP growth below 2% annually. Even that figure could be optimistic, given that the official projections assume significant rebounds in both the fertility rate and real wage

Table 4

Sources of net U.S. saving*

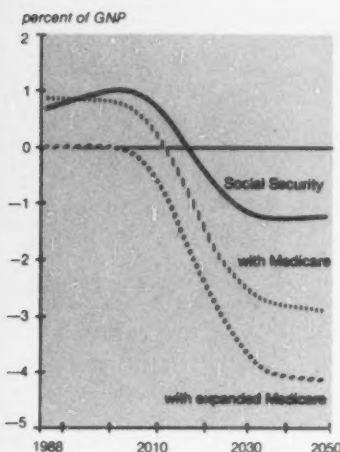
percent of GNP

	Private	Federal government			Total
		On-budget	Social Security	Medicare	
Actual 1980-87	7.1	-4.2	0.1	0.1	3.1
Policy choices					
Benefit binge					
2010	6.0	-3.0	0.0	-1.0	2.0
2030	6.0	-3.0	-4.0	-2.5	-3.0
Compromise					
2010	6.0	-2.0	2.0	-2.0	4.0
2030	6.0	-2.0	-2.0	-4.0	-2.0
Optimal					
2010	6.0	0.0	2.5	0.0	8.5
2030	6.0	0.0	0.5	0.0	6.5

*Social Security and Medicare projections account for feedback between the budget and the economy. "Private" includes state and local government surpluses.

Chart 2

Combined operating surpluses*



*Tax revenue minus outgo, excludes interest paid on trust fund assets and liabilities.

growth relative to the experience of the last twenty years (see Table 6). Neither rebound can be taken for granted.

Saving for investment: the bottom line

The prospective growth shortfall highlights the fundamental problem with most "solutions" for the Social Security problem: their implications for saving, investment, and GNP growth. When the economy is operating at or near full employment, government deficits draw savings out of the private sector, either "crowding out" private investment or requiring that it be financed by net capital inflows from abroad. U.S. net private saving was 4.3% of GNP last year, but government borrowing of 2.4% cut the net domestic savings rate to only 1.9%. Net domestic investment was considerably higher, at 5.3% of GNP, thanks to the capital inflows that covered the nation's \$154 billion external deficit on current account. It is unlikely, for both economic and political reasons, that this high pace of net foreign inflows could be sustained through coming decades. In any case, foreign inflows increase foreign claims on future U.S. output. Inadequate domestic saving therefore would hurt future U.S. generations by reducing the stock of productive assets they inherit.

For that reason, the ultimate objective of a well-conceived Social Security policy is not merely to provide for retirement financing, but also to set aside real resources for the future. After all, the larger the economic pie as a whole, the easier it should be to assure the next century's retirees the increasing slice that their numbers and intergenera-

tional equity will demand.

More than anything, a larger pie requires higher investment. The dramatic improvement that an effective domestic saving and investment effort can make is evident in the "optimal" policy scenario (see Tables 4 and 7). This would avoid all the mistakes of the "benefit binge" or "compromise" scenarios: GRH targets would be met on schedule, reforms in Social Security and Medicare would be implemented keeping the combined system solvent, and an overall budget surplus equal to the Social Security surplus would be productively invested.

With this optimal policy the unified budget would swing from a deficit of 3.4% of GNP in FY1987 to a peak surplus of 2.4% in 2010, pushing up the overall net domestic savings rate to over 8% of GNP in 2000-2020. Thereafter, saving would decline upon the reemergence of Social Security deficits. Nevertheless, with the budget under control, the net savings rate would remain above its 1987 level, in turn engendering a "virtuous circle." Increased investment would lift real GNP and tax revenues, making a still larger surplus available for investment. Conservative estimates show that GNP growth would be boosted an average of 0.6 percentage points annually relative to the official projection of the Social Security trustees. Taxable incomes would be higher in consequence, increasing the assets of the trust funds and making possible, if so desired, higher benefits to retirees. Altogether, there would be a larger economic pie to share among growing demands — provided the Social Security surplus is productively invested.

Table 5

Official U.S. economic assumptions* percent change

	1990	2010	2030	2050
Working-age population	0.9	0.6	0.2	0.0
Real GNP	2.9	1.9	1.7	1.6
Consumer prices	4.3	4.0	4.0	4.0
Interest rate**	8.9	6.0	6.0	6.0
(percent per annum)				

*Projections of the Social Security trustees under current law with intermediate assumptions ("II B").

**Rate earned on assets of the Social Security trust funds.

Table 6

Sensitivity of Social Security tax to assumptions
percent per annum

	Fertility rate*	Real wage growth	Inflation-adjusted interest rate
Actual			
1960-73	2.8	1.5	1.7
1974-79	1.8	0.3	-0.2
1980-87	1.8	0.9	5.3
Long-term projections			
Official	1.9	1.4	2.0
Alternative	1.6	0.9	3.0
Impact on payroll tax rate in 2010**	1.0	0.5	-0.5

*Average number of children born to women who reach reproductive age.

**Percentage point change to yield same revenue as projected on the middle-of-the-road official assumptions.

Table 7

Policy payoffs

	Year in which Social Security	
	Goes into deficit	Runs out of money
Policy choices		
Official projection	2030	2048
Benefit binge	2008	2013
Compromise	2010	2015
Optimal	2036	2051
	Annual average real GNP growth	
	Rate	Per capita
Actual, 1980-87	2.3	1.3
Projected, 2000-2020		
Official projection	1.9	1.4
Benefit binge	1.0	0.5
Compromise	1.5	1.0
Optimal	2.5	2.0

Investing the surplus

How to assure productive investment of the U.S. Social Security surplus has received scant attention in the popular debate, yet is an issue crucial to the viability of the system.

The simplest investment options carry the greatest risk. Under current law, the surplus must be invested in government securities. However, this does not constitute productive investment if it merely encourages the government to "borrow" from Social Security to cover on-line budget outlays, except to the extent that these outlays themselves constitute productive investment. Obviously, with a change in the law, the U.S. surplus could be used to fund public investment directly. This would parallel practice in Japan, whose sizable and long-standing social security surpluses finance investments by public corporations. Going one step further, the U.S. surplus might even be used to support an expanded "industrial policy," targeting loans for investment by deserving private businesses.

Would such public or publicly directed investment be productive? The federal government already engages in a host of lending activities. Certainly too, the United States could use more infrastructure such as better roads and bridges as well as nursing homes and hospitals. The risk in such projects, however, is that the funds may be used inefficiently, either poorly managed or diverted to current spending. Any shortfall in the return on these projects would have to be made up in the future through higher taxes.

These risks, which apply to all public capital programs, cast

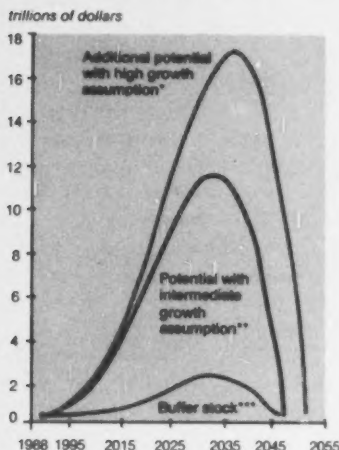
doubt on current proposals to divide all federal government accounts into distinct capital and operating budgets. This is the practice of private business, lower levels of government in the United States, and most foreign governments. Typically, borrowing is considered permissible to cover part of the capital budget, but not the operating budget. The problem is that there is an ever-present temptation to hide maintenance and consumption outlays in the capital budget. Furthermore, the aura of virtue surrounding "capital" outlays shields them from rigorous scrutiny, resulting in a poor rate of return in many instances. In sum, earmarking the Social Security surplus to finance public capital items would do little to ensure its productive investment.

The danger that the surplus will be dissipated bolsters the case for removing all or part from the political arena through some form of privatization. Of course, purely voluntary, private provision for retirement is a political nonstarter. It would require an enormous "buy-out," running to several trillions of dollars, to preserve benefits to current retirees. Besides, unlike a private pension, Social Security provides an income maintenance system for low-income retirees. Much of the payroll tax constitutes a form of forced saving for people who otherwise would make inadequate individual provision for retirement. Plainly, private saving alone cannot meet the objectives of Social Security.

The best solution could be to privatize just the surplus portion of Social Security revenues, perhaps along the following lines. Until 1990 the surplus would continue to be invested solely in government securities, building

Chart 9

Privatization potential of Social Security assets



* With optimal saving, investment, and growth performance as projected in Tables 4 and 7

** Under assumptions of the Social Security Trustees

*** Prudent minimum to be retained in official fund, set at one year's system outgo through 2030, thereafter drawn down in step with total assets.

up a buffer stock holding of about \$300 billion. Starting in 1990 Social Security contributors would be allowed to divert, say, 2 percentage points of their payroll tax to individual investment accounts. The percentage point diversion would be redetermined periodically in light of experience with the take-up rate; the intent would be to maintain the official buffer stock holding at a level on the order of one year's outgo, enough to cover any unanticipated shortfall in the system. This partial privatization would continue until the system stops running large surpluses, which is projected to occur around 2020.

For the typical taxpayer the diversion would amount to about \$500 to \$1000 per year, measured in 1987 dollars. The funds would be restricted to pre-approved investment accounts, similar to today's Individual Retirement Accounts (IRAs) but subject to tougher tests of investment suitability and tighter restraints on early withdrawals. Upon retirement, the individual would receive public benefits lower than under current law but would supplement them by drawing on the private accounts.*

This privatization scheme would ensure that most of the Social Security reserve is productively invested. For example, based on official projections the total reserve should reach about

\$9 trillion in 2020. Under privatization about 80% of the total would be diverted to private accounts. And a substantially greater sum would be held in the private accounts were the high-growth "optimal" policy scenario also to be followed (see Chart 9). By taking most of the assets out of government hands, this scheme would help depoliticize Social Security. It would not only reduce the risk that the funds would be diverted to other uses, but also help assure future retirees that some of the benefits the system promises today will be forthcoming at their time of need.

Financial market implications

Beyond their consequences for U.S. economic growth and living standards, the budget decisions made — or not made — in the years ahead will have profound implications for both domestic and international capital markets.

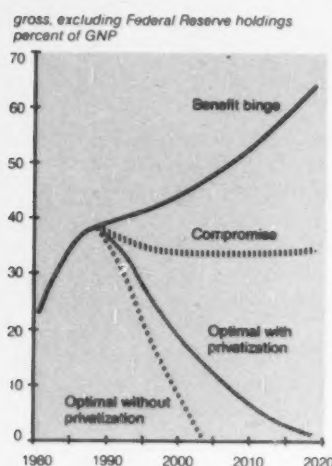
If the federal government adheres to the Gramm-Rudman-Hollings deficit targets, holds the line on new programs, and invests the Social Security surplus as current law requires, the ramifications are startling.

For example, the trust funds could absorb all outstanding federal debt by the year 2005. That would force a change in the way U.S. monetary policy is conducted. With few or even no government bonds available to buy on the open market, the Federal Reserve could not maintain its present operating procedure. This need be no calamity, since the authorities have other means to exercise monetary control. Among them are changing reserve requirements and discount window policy. Both these tech-

*Each individual's public benefit would be lowered by an actuarially determined figure based on the amount of payroll tax diversion plus interest this would have earned had it remained in the trust fund. To the extent that the private accounts earn a higher yield, the individual would receive greater benefits through privatization. For an individual contributing regularly and earning one percentage point additional yield, the value of a private account after thirty years would be about 10% higher than that of the government alternative.

Chart 10

Publicly held federal debt



niques have the disadvantage of rather limited flexibility. Instead, there should in principle be no objection to conducting open market operations through purchase or sale of liquid commercial paper and other private debt instruments. The Federal Reserve did this earlier in its history and it is today a normal practice on the part of the Bank of England, the Bank of Japan, and the Bundesbank.

Of course, sustained fiscal discipline is hardly certain. More likely, political compromise will eventually yield something approaching a balanced federal budget on a unified basis. In that event the government securities market will shrink in relation to both the private capital market and U.S. GNP (see Chart 10) — the more so if foreign official reserve policies effectively lock up U.S. Treasury issues.*

The relative decline in the market for government obligations would be matched by growth in the private capital markets. The increased availability of funds for private investment would place downward pressure on real interest rates. How far rates might fall is a matter of controversy. The highest estimates offered in the literature on the "crowding out" of investment by government borrowing suggest that full implementation of the GRH budget targets would cut long-bond rates by more than 100 basis points, with another 100-point cut possible if the Social Security surplus develops as

projected. To take the place of the reduced stock of government securities, there also may be increased demand for relatively low-risk private-sector securities. The yield curve for such securities could steepen in consequence insofar as short-term assets are perceived as less risky. Rates on high quality private securities also could fall relative to lower quality issues.

Lower interest rates and higher domestic saving would have profound effects on the external balance. In particular, the United States could again become a net lender, pushing the current account toward surplus. The most noticeable change could be in U.S. trade with Japan. Demographically, Japan is about twenty years ahead of the United States. Whereas the ratio of the over-65 population to the workforce will remain roughly constant in the United States until 2010, it will more than double in Japan; the working-age population in Japan will be in outright decline, as already is the case in Germany. Therefore, during this period when the U.S. population would be well advised to step up capital formation, the Japanese may begin drawing on their accumulated capital. Reflecting the shift in relative savings behavior, net capital flows between the two nations, and the associated trade and current account imbalances, could reverse by the turn of the century, completing the adjustment already under way.

Do the demographic forces portend a higher or a lower real exchange market value of the dollar over the long term? Conflicting forces will be at work. If U.S. labor productivity growth matches that of other industrial countries, the relatively fast increase of the labor force points

*Speculation has arisen that, given the shrinkage of the deficit, the government soon will stop issuing new 30-year bonds. This speculation has little logic as a matter of sound debt management. As long as the market demand is there, and the government has to refinance the federal debt, issues spanning the whole range of maturities should continue to be sold for the foreseeable future.

to higher growth in economic activity in the United States than elsewhere. In itself, the correspondingly higher U.S. import demand at any given level of the exchange rate would suggest difficulties in achieving balance, let alone surplus, in the external accounts.

Yet a strong dollar often is inspired by a strong U.S. economy, particularly if productivity- and competitiveness-boosting investment can become the engine of U.S. growth as a result of budget surplus. By contrast, during the next twenty years the faster-aging populations of Japan and Germany may become much more consumption-oriented.

This strong dollar environment, however, is a long way off. The dollar's recent run-up, seemingly in response to U.S. monetary tightening and somewhat better trade results, still should be viewed as temporary. The dollar will hold firm on a permanent basis only when much more progress on the twin deficits has been achieved. Yet, for the time being the dollar's present level substantially eliminates the rela-

tive cost handicap borne by U.S. industry during the first half of the 1980s. Industry now has the opportunity to compete on price to recapture domestic and global market share. With its resources almost fully stretched, the open and growing U.S. economy is unlikely to see an absolute rollback in imports. Instead, decisive narrowing of the trade and current account deficits will depend on boosting exports 15%-20% annually for several years ahead.

To that end there is pressing need to expand the nation's productive capacity. This is a matter of raising and sustaining the U.S. net savings rate well above its average of the past twenty years. Higher saving is the fundamental rationale for steadfast implementation of the Gramm-Rudman-Hollings budget targets and for the productive investment of the Social Security surplus. By these means, domestic saving and investment should rise strongly enough to put the economy in good shape to carry the demographic burden of the next century.

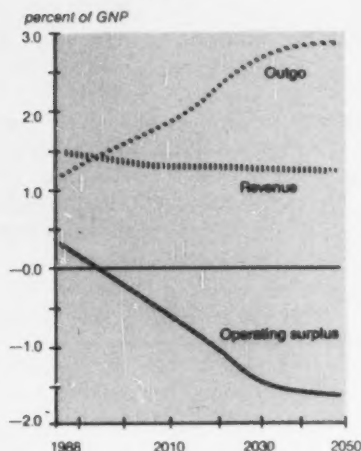
Controlling Social Security and Medicare

Barring unforeseen misfortune, the accumulation and investment of the Social Security surplus should keep the system on its feet for the next 75 years. Nonetheless, there are considerable downside risks to this promising outlook, risks that warrant further streamlining of the Social Security retirement system. In addition, projections show Medicare going into the red in 1998, exhausting its trust fund by 2005, and incurring a deficit of 3% of

taxable payroll by 2030. Reforms to Medicare therefore are needed if it is to meet its current obligations, let alone incorporate the host of new programs being debated in Congress. So long as current retirees and the elderly poor are protected, Social Security and Medicare should not be immune to cutback.

The Social Security system is intended to provide adequate protection for the elderly and disabled. With the growth of both

Chart 11

The Medicare outlook*

*Projections by Hospital insurance trustees based on current law and intermediate assumptions (variant IIB).

public and private pension plans, however, the elderly no longer are poor relative to the population as a whole.* Furthermore, in the future, as current public and private plans take full effect, the position of the elderly is likely to continue to improve. Admittedly, the elderly are particularly vulnerable to economic and health problems, so that holes in the Social Security and Medicare safety net need repair. It does not follow, however, that the elderly as a group deserve a larger slice of the economic pie than their numbers warrant.

Two reforms of future retirement benefits would significantly alleviate the potential burden on contributors and, by lowering expected benefits, would encourage higher private saving. The first reform would reduce future benefits to middle- and upper-income recipients. The formula for calculating benefits could be made more progressive. Alternatively, with appropriate protection for the low-income elderly, benefits could be fully taxed as ordinary income, raising revenue by about 1% of taxable payroll per year.

The second reform would be to increase further the retirement age at which full benefits are paid. Under the current law that age is to rise gradually to 67 by the year 2027. Instead, the phase-in could be accelerated and the age pushed up to 68 or 69, for a saving in outlays of 1%-1.5% of taxable payroll per year. Later retirement would

be consistent with demographic trends toward longer and healthier lives, such that many people likely will wish to work longer, although not necessarily in their primary working-life occupation. Besides, faced with the likely labor shortage of the next century, firms will be less keen to encourage the early retirement of seasoned employees. This would reverse the tendency of the last two decades when slower economic growth and a rapid increase in the labor force have made early retirement attractive.

Medicare warrants urgent attention. Under current law, Medicare outlays are projected to rise an average 10% annually over the next 40 years, even using assumptions on health-cost inflation that are optimistic relative to recent experience. The Medicare trust funds are projected to run deficits reaching 1.5% of GNP by the end of the same period (see Chart 11) and will be prime suitors for "borrowing" from the Social Security surplus. Such borrowing would not be a permanent solution; taken together, the Medicare and Social Security trust funds could be exhausted by 2030.

Regaining Medicare solvency will require a combination of creativity, realism, and restraint to address both financing arrangements and the costs of care. Ideally, Congress and the Administration would address the long-run funding problems of the current system before succumbing to pressures for expanded benefits. Recent bills before Congress have sought coverage for long hospital stays, large doctors' bills, prescription drugs, and both nursing and private home care.

Most of the proposed bills have been advertised as "self-

Table 8

**Health care spending
1984, percent of GNP**

	Public	Total
United States	4.4	10.7
Canada	6.2	8.4
Japan	4.8	6.6
Germany	6.4	8.1
France	6.5	9.1
Italy	6.1	7.2
United Kingdom	5.3	6.9
Denmark	5.3	6.3
Sweden	8.6	9.4

Source: OECD.

*In 1967 30% of people over 65 had incomes below the poverty line, more than double the rate for the rest of the population. Today the opposite is true: average incomes and wealth of the elderly exceed those of the population as a whole. Furthermore, the poverty rate among the elderly is below 15%, a lower incidence than among the rest of the population.

financing," relying primarily on insurance premiums and taxes levied on the elderly. These are favored over payroll tax financing, since the group receiving the increased benefits pays the associated costs. Initially the costs would be fairly modest. For example, the Congressional Budget Office estimates the price tag on the catastrophic health costs bill at \$7-\$11 billion in 1992. By itself this would represent no more than a 12% increase in Medicare outlays over the next four years. More ominous would be the accelerating growth in the covered catastrophic costs — to above 10% per annum in 1992 and still faster thereafter. There is a limit to how high taxes on the elderly can go before pressure mounts to shift the burden onto the general population. Were the costs of the more generous new health care proposals to be assumed by the payroll tax, the Medicare portion, now 2.9%, could triple by the time the baby boomers retire.

Before this happens, it would make sense to reconsider the potential role of private sources of funds. With about \$2 trillion in assets, the elderly as a group can afford to continue paying substantial medical bills, given well-conceived private financing options. For example, at individual premiums of some \$350 annually, the more comprehensive "Medigap" insurance policies, which fill gaps in Medicare coverage, protect against catastrophic costs much better than any of the proposals considered by Congress. For nursing home care, by contrast, the private in-

surance market leaves much to be desired. Nor have the private markets yet evolved widely available and appropriate mechanisms to mobilize the near-50% of the elderly's assets that are tied up in home equity. One attempt is seen in the "reverse annuity" mortgage instruments that some banks now offer, whereby the bank pays the retiree homeowner a lifetime income in exchange for a full or partial equity claim following the homeowner's death. Unfortunately, wider use of such instruments is inhibited by their unfamiliarity, illiquidity, and, in some states, unacceptability to regulators.

Value for money should be the other priority concern in health care. In 1984 the U.S. health industry consumed 10.7% of GNP, a higher percentage than anywhere else in the industrial world (see Table 8). U.S. spending was significantly above that of the next highest spender, Sweden, and double that of the United Kingdom. At present, the preponderance of passive, third-party financing in the U.S. health care system militates against cost-consciousness. This failing can never be adequately addressed by ever-increasing regulation. Getting more care for less money is a matter of creating effective incentives to both patients and providers to choose and develop cost-sparing solutions. Strengthening the role of provider competition is crucial for a more satisfactory outcome. So too is acceptance of the hard reality that, one way or another, health care cannot be exempt from demand restraint.

Statistical appendix

For key to data in tables see pages 22 and 23.

Effective exchange rates — industrial countries, 14
Real effective exchange rates — developing countries, 14
International banking market size, 15
International bond issues and bank credits, 16
Eurocurrency deposit rates, 17
International bond yields, 17
Central bank discount rates, 18
Day-to-day money rates, 18
Treasury bill rates, 19
Representative money market rates, 19
Commercial bank deposit rates, 20
Domestic government bond yields, 20
Commercial bank lending rates to prime borrowers, 21
Domestic corporate bond yields, 21

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Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1983	114.2	100.8	107.8	92.0	87.3	107.5	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.5	82.2
1984	122.3	97.3	112.9	94.2	84.4	107.3	86.7	88.1	103.6	88.9	103.9	77.4	110.5	93.9	97.8	84.3
1985	127.0	92.8	115.9	76.3	85.5	107.8	82.1	88.2	104.2	89.6	104.0	75.6	109.5	95.1	95.8	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.2	81.6
1987	94.1	89.0	164.4	58.3	87.1	122.0	82.3	79.0	110.8	95.6	114.6	73.1	123.1	102.8	85.7	80.1
1987																
June	94.8	88.8	164.7	59.9	87.1	121.6	81.8	79.1	110.2	95.6	114.3	71.9	122.7	103.4	86.5	80.5
July	96.0	90.0	159.1	60.0	87.2	121.4	81.6	79.2	110.2	95.4	114.2	72.5	122.2	102.4	87.2	80.4
August	95.7	90.0	162.7	59.6	86.8	121.3	81.5	78.9	110.1	95.2	114.1	73.6	122.6	101.3	87.3	80.2
September	93.9	90.3	165.4	60.5	86.9	121.5	81.8	79.6	110.1	95.3	114.4	74.6	122.7	101.0	87.4	79.7
October	93.4	90.7	165.1	58.9	86.7	121.3	81.7	80.0	115.7	95.1	114.5	75.9	122.3	101.3	87.0	79.6
November	90.0	89.3	171.2	54.3	86.7	123.6	81.2	81.5	110.9	95.6	115.9	75.6	125.4	102.5	85.2	79.2
December	87.4	89.4	178.6	55.1	87.0	123.8	81.4	81.9	110.8	95.8	115.9	75.2	126.9	103.0	83.5	78.9
1988																
January	87.4	91.0	179.8	55.1	87.2	123.4	81.3	81.2	110.7	95.6	115.8	74.8	126.5	103.0	84.6	79.1
February	88.2	92.6	179.3	56.0	86.8	122.9	81.0	80.8	110.7	95.4	115.6	75.0	125.1	102.8	85.4	79.7
March	86.8	93.7	180.7	57.0	86.3	122.8	80.5	83.5	110.7	95.2	115.4	75.5	123.9	102.3	85.1	79.9
April	85.8	94.6	183.2	57.5	85.9	122.6	80.1	85.2	110.6	94.9	115.3	76.2	123.6	101.5	86.1	80.1
May	86.1	94.5	183.7	60.0	86.1	122.1	79.7	85.4	110.4	94.8	115.0	76.0	122.2	101.2	87.1	80.4
May 6	85.9	94.7	183.4	59.0	86.0	122.6	79.8	84.9	110.6	95.0	115.2	76.2	122.6	100.9	87.0	80.4
13	85.8	94.6	183.7	59.3	86.1	122.3	79.8	85.7	110.4	94.8	115.0	75.9	122.6	101.0	87.1	80.3
20	86.3	94.5	183.4	59.9	86.0	121.9	79.7	85.7	110.3	94.8	114.9	75.9	122.0	101.2	87.2	80.4
27	86.3	94.3	184.3	61.3	86.2	121.7	79.6	85.5	110.2	94.8	114.8	75.9	121.6	101.4	87.3	80.4
June 3	86.9	95.1	183.4	62.9	86.2	121.8	79.5	84.1	110.2	94.7	114.7	75.8	121.8	101.6	87.2	80.3
10	86.6	95.7	183.5	62.6	86.2	122.0	79.6	83.6	110.3	94.8	114.8	76.0	121.9	101.9	87.2	80.2
17	87.0	96.5	183.8	63.2	86.1	121.6	79.5	83.6	110.1	94.5	114.5	75.7	121.4	101.7	87.1	80.2

Real against 15 other industrial-country currencies

1983	112.7	102.6	96.8	101.8	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.8	105.1	100.4	102.0	90.8
1984	119.6	101.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.0	100.1	99.2	100.5	96.0
1985	121.7	96.3	99.0	86.9	100.4	96.6	100.2	92.8	103.2	85.2	96.5	92.3	97.9	101.2	99.3	96.8
1986	100.8	93.3	122.1	78.3	103.6	104.1	102.3	87.2	106.1	84.4	101.1	93.7	105.2	107.2	96.8	95.8
1987	90.1	96.4	127.8	80.3	105.0	107.2	103.3	87.3	109.8	84.1	104.1	95.6	109.1	111.4	100.2	95.1
1987																
December	84.2	97.0	136.7	77.8	104.3	108.5	103.7	90.9	109.5	83.0	104.3	100.2	112.0	112.2	98.8	94.8
1988																
January	84.5	99.1	137.0	78.0	104.3	108.1	104.1	90.7	109.3	82.8	102.0	100.3	111.1	112.0	100.5	95.5
February	85.3	100.2	136.0	79.8	103.7	107.5	104.6	90.5	109.1	82.2	102.1	101.0	109.7	112.4	101.7	96.5
March	84.1	101.5	136.6	81.6	103.4	107.3	103.3	93.8	109.2	81.7	102.4	99.8	108.9	112.2	101.3	97.1
April	83.4	102.7	137.5	82.7	102.8	107.2	103.2	96.1	108.7	81.3	101.6	100.7	108.1	111.4	103.0	97.2
May	83.8	102.7	137.4	86.7	103.0	106.6	103.1	96.5	108.6	81.0	101.0	101.0	107.0	112.2	104.8	97.0

Real against 18 other industrial-country and 22 LDC currencies

1983	114.9	104.6	100.4	102.0	94.4	100.6	100.8	93.1	102.1	88.2	99.5	89.2	105.1	100.3	101.9	91.0
1984	120.8	102.6	102.4	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.9	91.2	99.8	99.0	100.5	95.8
1985	123.3	99.0	104.2	89.6	99.9	95.6	99.7	92.2	102.8	84.5	94.7	93.0	97.7	101.1	99.7	96.7
1986	106.3	94.3	126.7	80.2	104.1	105.2	103.7	87.9	106.9	84.9	101.0	96.2	107.1	107.7	97.6	96.5
1987	96.2	96.5	131.5	81.8	106.1	109.5	105.8	88.8	111.3	85.3	105.0	99.1	112.1	112.2	101.1	96.4
1987																
December	90.2	96.3	139.5	79.4	105.5	111.0	106.5	92.7	111.3	84.4	105.4	104.1	115.1	113.0	99.8	95.9
1988																
January	90.4	98.4	139.8	79.5	105.3	110.4	106.7	92.4	110.9	84.0	103.0	104.0	114.1	112.8	101.5	96.7
February	90.6	99.5	138.7	81.1	104.5	109.4	106.9	92.0	110.6	83.2	102.9	104.4	112.4	113.1	102.7	97.8
March	89.5	100.7	139.2	83.0	104.1	109.2	105.6	95.3	110.6	82.7	103.1	103.0	111.4	113.0	102.3	98.2
April	88.7	101.8	140.0	84.2	103.5	108.8	105.3	97.5	110.0	82.2	102.2	103.9	110.5	112.2	104.0	98.3
May	89.1	101.3	139.9	87.9	103.5	108.1	105.1	97.8	109.7	81.8	101.4	104.0	109.1	112.9	105.7	98.1

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1983	71.6	86.0	89.3	104.9	79.0	98.5	117.3	95.0	96.2	97.6	113.9	96.1	101.8	94.6	120.8	94.2
1984	80.2	85.7	90.1	99.8	91.9	105.8	85.9	99.5	96.0	96.5	119.7	107.9	102.5	97.1	119.5	89.6
1985	71.0	84.8	79.5	85.3	90.4	98.5	92.7	103.3	93.7	88.7	115.7	114.1	95.2	94.3	106.5	88.8
1986	60.8	74.2	68.4	67.4	65.0	96.3	85.4	93.2	70.6	82.0	94.0	89.7	79.8	88.3	100.7	70.5
1987	53.3	73.5	65.1	63.0	66.7	107.6	60.1	89.2	53.9	83.9	87.9	86.4	73.3	93.4	97.1	62.5
1987																
June	53.5	75.2	65.4	62.7	64.9	109.2	61.7	90.4	53.9	84.6	88.7	86.0	73.3	94.6	96.7	62.8
July	53.3	72.9	65.6	63.9	66.2	115.0	63.6	89.8	55.2	86.4	88.6	86.4	73.9	95.8	98.5	62.9
August	54.6	71.1	66.1	63.5	69.8	119.9	64.3	89.4	55.1	86.0	88.4	88.2	74.2	97.4	99.6	63.1
September	53.5	71.0	65.3	62.7	71.5	121.1	64.5	90.2	54.0	85.0	88.3	87.0	73.5	97.4	99.7	61.6
October	53.8	73.3	64.2	62.1	73.6	119.9	64.9	89.9	54.3	85.7	87.0	89.1	73.0	98.1	100.4	60.7
November	49.2	73.9	61.6	60.4	73.5	104.8	64.2	89.0	52.8	85.3	84.8	87.3	72.0	94.8	99.2	58.6
December	49.0	74.7	61.3	60.0	67.2	80.1	63.3	87.1	51.1	84.3	82.7	87.8	70.1	95.9	98.9	62.3
1988																
January	49.3	76.9	59.1	61.6	72.6	76.5	62.9	85.7	51.0	85.3	81.4	87.5	70.0	95.5	100.1	62.8
February	50.9	78.0	60.7	62.7	79.1	88.0	63.8	85.9	51.7	88.1	81.1	87.6	70.8	96.3	101.3	63.5
March	51.6	76.7	62.4	61.4	80.1	104.1	63.6	86.6	50.9	89.0	80.4	85.4	68.9	95.0	101.8	64.2
April	52.2	78.1	63.0	60.1	79.7	121.4	63.3	86.6	50.6	89.2	79.9	85.3	69.0	94.6	102.4	65.0
May	55.1	78.0	59.5	59.7	80.4	131.8	63.7	88.5	51.1	90.3	79.8	87.3	69.4	93.1	103.8	64.7

International banking market size

at end of period, billions of dollars

	1982	1983	1984	1985	1986	1987			
					Dec	Mar	Jun	Sep	Dec
Gross claims									
Eurocurrencies, on residents and nonresidents	2 146	2 253	2 359	2 833	3 560	3 811	3 942	4 147	4 405
On nonbanks	634	665	694	822	938	995	1 175	1 215	1 284
On banks	1 512	1 588	1 665	2 011	2 622	2 817	2 767	2 932	3 121
In dollars	1 694	1 797	1 894	2 101	2 534	2 602	2 753	2 882	2 891
In other currencies	452	456	465	732	1 025	1 209	1 189	1 265	1 515
Domestic currencies, on nonresidents	398	402	402	506	672	721	757	801	915
On nonbanks	132	140	142	187	209	229	236	230	222
On banks	266	262	260	319	463	492	521	571	693
In dollars	211	221	215	215	227	206	215	220	221
In other currencies	187	181	187	291	445	515	542	581	694
Total	2 544	2 655	2 761	3 339	4 232	4 532	4 699	4 948	5 320
On nonbanks	766	805	836	1 009	1 147	1 224	1 411	1 445	1 506
On banks	1 778	1 850	1 925	2 330	3 085	3 309	3 288	3 503	3 814
In dollars	1 905	2 018	2 109	2 316	2 761	2 808	2 968	3 102	3 112
In other currencies	639	637	652	1 023	1 470	1 724	1 731	1 846	2 209
Gross liabilities									
Eurocurrencies, to residents and nonresidents	2 168	2 278	2 386	2 846	3 579	3 851	3 999	4 205	4 481
To nonbanks	432	479	497	585	685	740	768	791	808
To official monetary institutions	91	88	96	112	109	125	139	151	151
To other banks	1 645	1 711	1 793	2 149	2 786	2 986	3 085	3 263	3 502
In dollars	1 741	1 846	1 950	2 147	2 553	2 648	2 785	2 936	2 924
In other currencies	427	432	436	699	1 026	1 203	1 214	1 269	1 537
Domestic currencies, to nonresidents	250	260	280	377	494	556	580	638	782
To nonbanks	70	73	80	114	116	134	144	176	191
To banks	180	187	200	263	377	422	436	462	591
In dollars	116	135	146	169	192	192	197	212	262
In other currencies	134	125	134	208	302	364	383	427	520
Total	2 418	2 538	2 666	3 223	4 073	4 407	4 579	4 843	5 243
To nonbanks	502	552	577	699	801	874	912	967	999
To banks and official institutions	1 916	1 986	2 089	2 524	3 272	3 533	3 660	3 876	4 244
In dollars	1 857	1 981	2 096	2 316	2 745	2 840	2 982	3 148	3 186
In other currencies	561	557	570	907	1 328	1 567	1 597	1 696	2 057
Net market size	1 285	1 382	1 430	1 676	1 979	2 083	2 170	2 231	2 377

International bond issues and bank credits

millions of dollars

	1985	1986	1987	1988			Jan-May	
				Mar	Apr	May	1987	1988
By country of borrower								
Industrial countries	225 885	273 653	248 758	30 424	27 440	24 754	105 035	141 921
Australia	14 407	19 251	11 349	1 824	1 535	1 552	4 845	6 167
Austria	2 435	3 821	4 695	569	991	180	1 974	4 089
Belgium	3 269	5 042	4 443	525	81	161	2 054	1 708
Canada	17 184	23 752	10 181	2 198	1 570	1 229	4 373	7 425
Denmark	3 589	9 813	4 774	359	691	325	3 502	2 297
Finland	1 846	3 578	3 517	779	190	880	1 967	2 581
France	18 773	20 027	16 022	2 981	2 284	2 059	7 243	13 188
Germany	3 452	12 589	10 922	1 338	729	290	5 938	4 080
Greece	1 567	1 361	1 482	350	—	119	510	469
Ireland	1 861	3 261	2 195	331	150	123	939	835
Italy	11 033	12 723	13 421	1 499	707	513	3 337	3 892
Japan	21 269	35 283	45 591	2 016	4 070	2 570	17 606	16 488
Netherlands	2 299	3 215	5 069	610	383	645	2 158	2 744
New Zealand	2 707	7 818	5 942	437	402	1 936	2 698	3 086
Norway	3 905	6 750	5 917	478	888	544	3 355	3 789
Portugal	2 382	2 503	2 159	—	362	—	1 010	1 051
Spain	3 913	7 083	1 794	434	250	82	757	1 275
Sweden	9 890	6 000	5 766	1 683	1 889	985	2 914	6 528
Switzerland	864	2 247	1 201	—	864	250	635	915
United Kingdom	25 424	24 109	33 225	5 446	4 638	5 582	15 867	26 056
United States	69 193	55 703	45 412	6 129	2 867	3 978	19 971	24 513
Other*	4 582	5 703	13 719	440	2 099	750	1 385	8 764
Developing countries	32 964	23 884	28 070	5 372	925	1 635	15 062	10 922
Latin American countries	8 115	3 395	10 729	2 635	94	130	8 097	3 988
Argentina	3 700	17	2 110	—	—	—	—	—
Brazil	—	350	—	—	—	—	—	—
Chile	1 085	—	—	—	—	—	50	1 000
Colombia	1 052	240	137	—	—	—	7 700	2 556
Mexico	109	313	7 700	2 556	—	—	—	134
Venezuela	48	—	30	—	34	—	—	298
Other**	2 121	2 475	753	79	60	130	347	—
Asian countries	18 410	14 444	13 219	1 935	565	486	5 422	4 440
China	3 192	3 336	4 338	515	300	192	1 676	1 252
India	816	1 795	2 156	546	82	120	905	1 133
Indonesia	451	1 343	1 745	174	—	30	620	330
Hong Kong	2 516	848	649	79	—	81	286	159
Korea	5 898	3 251	2 522	345	98	—	1 322	602
Malaysia	2 219	1 204	554	276	60	—	167	568
Thailand	1 497	1 676	463	—	—	—	169	300
Other	1 819	990	792	—	25	63	276	95
Middle Eastern and African countries	6 439	6 044	4 122	802	266	1 019	1 543	2 493
Algeria	1 450	1 344	344	153	—	—	154	333
Turkey	1 203	2 754	2 831	434	266	790	969	1 705
Other	3 786	1 945	947	215	—	228	420	455
Eastern European countries	5 236	3 941	3 564	317	150	150	1 657	690
Hungary	1 577	1 315	1 951	317	—	—	714	317
Soviet Union	1 480	1 821	804	—	50	150	862	273
Other***	2 169	805	749	—	100	—	280	100
International organizations****	20 635	19 896	20 013	3 034	1 824	1 072	8 051	6 866
By type of instrument and currency								
International bond issues	167 756	228 106	177 291	21 552	19 548	19 055	85 646	95 311
Eurobonds	136 731	188 747	140 481	15 620	16 249	15 476	73 214	74 725
U.S. dollar	97 782	119 096	56 727	5 551	4 805	4 858	26 131	27 529
Japanese yen	6 539	18 516	23 119	694	3 098	1 961	14 562	8 058
German mark	9 491	17 127	15 516	3 256	1 413	1 873	8 645	10 693
British pound	5 766	10 585	14 997	2 713	3 184	3 215	8 006	12 622
Australian dollar	3 118	3 381	9 041	486	1 111	989	5 211	3 590
European composite units	7 038	7 057	7 423	1 163	765	927	4 569	3 621
Canadian dollar	2 822	5 067	5 891	1 224	1 196	1 306	2 820	5 751
Other	4 174	7 918	7 766	531	679	347	3 271	2 862
Foreign bonds	31 025	39 359	36 811	5 932	3 299	3 579	13 432	20 587
Swiss franc	14 954	23 213	23 976	3 048	2 148	2 118	8 789	13 329
U.S. dollar	4 655	6 782	5 911	979	356	550	1 750	2 585
Japanese yen	6 379	5 223	3 068	1 286	484	481	1 517	2 482
Other	5 037	4 141	3 856	620	311	429	1 375	2 190
International bank credits	116 964	93 269	123 115	17 595	10 591	8 557	43 160	67 089
Eurocurrency credits	110 317	84 208	112 104	16 700	10 158	8 193	39 919	65 132
Foreign credits	6 647	9 061	11 012	895	435	364	3 241	1 957
Total	284 720	321 375	300 406	39 148	30 140	27 911	129 806	162 400

*Includes multinational organizations.

**Includes unallocated.

***Includes COMECON institutions.

****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1984	1985	1986	1987		1988				
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May
Eurodollar										
overnight	8.63	12.25	22.00	6.62	6.75	6.69	6.69	6.75	6.88	7.31
one month	8.38	8.00	6.50	8.25	7.06	6.69	6.69	6.69	7.00	7.44
three months	8.63	7.88	6.25	7.94	7.37	6.81	6.69	6.81	7.19	7.63
six months	9.13	7.88	6.12	7.94	7.50	6.87	6.75	7.06	7.44	7.81
twelve months	9.81	7.94	6.12	8.19	7.81	7.25	7.12	7.44	7.88	8.31
Euro-Canadian dollar										
one month	9.88	9.00	8.00	8.56	8.00	8.50	8.25	8.25	8.44	8.81
three months	10.81	9.00	8.12	9.00	8.12	8.37	8.37	8.37	8.75	8.94
six months	10.06	9.00	5.19	9.12	8.44	8.50	8.37	8.62	8.88	9.19
twelve months	10.44	9.00	8.31	9.44	8.87	8.75	8.75	9.00	9.25	9.63
Euro-French franc										
one month	10.69	12.50	10.12	9.37	8.75	7.50	7.25	7.81	8.00	7.31
three months	10.69	13.00	10.37	9.37	9.00	8.00	7.75	8.31	8.25	7.50
six months	11.00	13.13	9.75	9.37	9.25	8.25	8.19	8.44	8.38	7.63
twelve months	11.38	12.25	8.75	9.37	9.25	8.50	8.50	8.56	8.50	8.00
Euromark										
one month	5.50	4.75	5.12	3.94	3.25	3.19	3.31	3.25	3.31	3.31
three months	5.50	4.75	4.87	3.94	3.37	3.25	3.31	3.31	3.44	3.56
six months	5.56	4.75	4.81	4.06	3.50	3.31	3.37	3.37	3.63	3.81
twelve months	5.56	4.81	4.81	4.12	3.75	3.56	3.50	3.56	3.81	4.19
Euro-Dutch guilder										
one month	5.69	5.75	6.31	4.81	4.50	3.94	3.94	3.87	3.88	3.81
three months	5.75	5.75	6.00	4.94	4.62	4.00	4.00	3.87	3.94	3.94
six months	5.81	5.81	5.87	5.00	4.69	4.12	4.06	4.06	4.06	4.13
twelve months	5.94	5.88	5.81	5.12	4.81	4.37	4.12	4.19	4.19	4.44
Euro-Swiss franc										
one month	4.44	3.88	3.94	4.94	2.50	1.25	1.37	1.62	2.06	2.81
three months	4.56	4.00	3.94	4.06	3.00	1.81	1.69	1.87	2.25	2.88
six months	4.63	4.00	3.87	4.06	3.19	2.37	2.12	2.19	2.44	2.94
twelve months	4.69	4.06	3.87	4.06	3.25	2.87	2.69	2.62	2.75	3.13
Eurosterling										
one month	9.50	11.69	11.12	9.00	8.56	8.44	9.00	8.44	8.06	7.38
three months	9.88	11.81	11.12	8.94	8.81	8.69	9.31	8.56	8.31	7.75
six months	10.00	11.81	11.06	9.00	9.00	8.87	9.50	8.69	8.69	8.25
twelve months	10.19	11.69	11.06	9.12	9.31	9.25	9.75	9.00	9.06	8.81
Euroyen										
one month	6.19	7.13	4.56	4.75	4.00	4.06	4.37	4.00	3.81	4.06
three months	6.19	6.56	4.50	4.44	4.12	4.12	4.19	4.00	3.94	4.06
six months	6.13	6.50	4.37	4.37	4.12	4.12	4.19	4.12	4.13	4.25
twelve months	6.13	6.38	4.31	4.44	4.12	4.19	4.19	4.19	4.25	4.31
European currency unit										
one month	9.25	9.63	8.56	6.94	6.62	5.87	6.12	6.19	6.13	5.63
three months	9.38	9.63	8.44	7.00	6.75	6.19	6.31	6.37	6.38	6.00
six months	9.50	9.63	8.06	6.94	6.87	6.37	6.44	6.44	6.50	6.31
twelve months	9.63	9.63	7.31	7.06	7.00	6.62	6.62	6.62	6.69	6.56

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1985	1986	1987		1988			1988		
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
<i>Eurodollar</i>	9.68	8.67	9.99	10.95	10.41	10.21	10.31	10.24	9.79	9.78
<i>Euromark</i>	6.73	6.62	6.82	6.87	7.04	6.74	6.69	6.54	6.27	6.33
<i>Swiss franc</i>	5.49	5.70	5.43	5.50	5.83	5.56	5.71	5.57	5.66	5.61
European governments										
<i>Eurodollar</i>	10.52	9.91	11.41	11.81	11.83	11.83	11.64	11.48	11.38	11.50
<i>Euromark</i>	7.03	6.77	6.65	6.76	6.81	6.81	6.21	6.23	6.07	6.06
<i>Swiss franc</i>	4.91	4.51	4.38	4.39	4.54	4.15	4.11	4.05	3.71	3.88
<i>European currency unit</i>	10.23	10.20	10.43	10.46	11.10	11.06	10.84	10.85	10.56	10.35

Central bank discount rates

at or near end of month

	1985	1986	1987	1988						Current	
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May		Jun 20 1988	effective since
United States	7.50	5.50	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	Sep 24, 87
Canada	9.49	8.47	8.66	8.62	8.57	8.78	9.12	9.17	9.39	9.39	Jun 23, 88
Austria	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	Dec 3, 87
Belgium	9.75	8.00	7.00	6.75	6.75	6.50	6.50	6.50	6.50	6.50	Mar 3, 88
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	3.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Dec 3, 87
Ireland	10.25	13.25	9.25	9.25	9.25	9.25	8.50	8.00	8.00	8.00	May 30, 88
Italy	15.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	Aug 28, 87
Netherlands	5.00	4.50	3.75	3.75	3.25	3.25	3.25	3.25	3.25	3.25	Feb 5, 88
Portugal	19.00	16.00	14.50	14.50	14.00	14.00	14.00	14.00	14.00	14.00	Feb 5, 88
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	10.50	7.50	7.50	7.50	7.50	7.50	8.50	8.50	8.50	8.50	Apr 29, 88
Switzerland	4.00	4.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Dec 4, 87
United Kingdom	11.31	10.81	8.37	8.37	8.87	8.37	7.88	7.38	8.88	8.88	Jun 24, 88
Japan	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	19.80	24.60	18.55	18.05	18.20	17.80	19.70	17.15	16.90	16.90	Jun 29, 88
South Africa	13.50	10.00	9.80	9.80	9.80	10.80	10.80	11.80	11.80	11.80	May 5, 88
Argentina*	5.00	11.19	17.59	15.71	16.71	18.38	19.10	21.58	21.58	21.58	May, 88
Korea	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 88
Philippines	11.50	9.64	9.25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Singapore	5.00	5.00	5.00	5.00	3.50	3.50	3.50	3.50	3.50	3.50	Feb, 88
Thailand	11.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 88
Venezuela	12.94	12.79	12.49	12.89	12.93	n.a.	n.a.	n.a.	12.93	12.93	Feb, 88

*Percent per month.

Day-to-day money rates

monthly averages

	1984	1985	1986	1987							
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	8.38	8.27	8.91	7.29	6.89	6.77	6.83	6.58	6.56	6.87	7.09
Canada	10.50	9.23	8.28	8.41	8.16	8.40	8.44	8.41	8.45	8.28	8.69
Austria	7.63	7.25	7.62	4.60	4.20	4.10	4.50	3.50	3.50	3.65	3.60
Belgium	9.12	6.60	5.08	4.34	5.44	5.09	5.02	4.16	5.10	5.05	4.28
Finland	15.07	11.98	11.97	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
France	10.95	9.02	7.80	7.89	8.87	8.23	7.80	7.28	7.54	7.55	7.34
Germany	5.82	4.64	5.00	3.74	3.55	3.19	3.13	3.32	3.24	3.25	3.30
Ireland	14.50	9.82	13.00	6.50	8.50	7.50	8.00	8.50	8.25	8.00	7.38
Italy	17.25	14.75	11.42	10.90	10.25	10.25	10.60	9.87	10.14	9.95	11.41
Netherlands	5.60	5.75	6.19	5.19	4.44	4.25	4.12	3.87	3.94	4.00	3.94
Norway	12.50	12.50	14.00	13.80	13.68	14.02	13.88	13.87	13.91	14.03	13.51
Spain	12.18	9.92	11.76	16.22	14.60	14.02	13.20	12.13	11.40	11.01	10.81
Sweden	11.88	11.83	8.89	8.42	8.97	8.43	8.75	9.37	9.61	9.71	9.75
Switzerland	1.50	2.00	1.12	1.25	1.50	0.50	0.50	1.00	1.25	2.13	2.25
United Kingdom	6.31	9.72	9.19	9.68	9.13	7.60	8.26	8.28	8.55	8.13	7.51
Australia	10.98	18.37	15.40	10.77	10.90	10.37	10.23	10.25	10.33	10.35	11.20
Japan	6.41	8.02	4.18	3.37	3.39	3.81	3.54	3.39	3.53	3.28	3.18
South Africa	21.13	12.50	8.50	8.64	8.45	9.76	9.75	9.25	9.85	10.00	10.90
Argentina*	17.75	4.50	7.00	9.00	9.80	14.90	16.40	14.90	17.60	18.18	19.70
Brazil	272.02	352.23	83.05	150.10	329.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	6.80	6.10	3.90	4.92	1.90	0.58	0.58	1.83	2.84	3.64	6.02
Korea	10.00	8.80	9.00	10.00	8.70	9.20	9.30	9.20	9.40	n.a.	n.a.
Philippines	15.22	15.03	9.92	12.94	14.35	22.53	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	6.01	4.53	3.51	3.55	3.40	2.57	2.73	2.93	3.01	3.08	3.56
Taiwan	8.07	4.50	4.00	3.67	3.57	4.58	5.11	5.52	5.37	5.23	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1984	1985	1986	1987			1988				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	8.12	7.28	5.83	5.41	5.79	5.84	5.80	5.78	5.87	6.15	6.67
Canada	9.64	9.24	8.24	7.84	8.31	8.41	8.37	8.32	8.53	8.87	8.92
Belgium	10.90	9.89	7.50	7.25	6.95	6.84	6.44	6.24	6.18	6.18	6.18
Ireland	15.10	11.15	13.60	8.80	9.10	8.69	8.34	8.78	8.33	7.83	7.17
Italy	14.69	13.10	10.00	11.98	12.06	11.66	11.37	10.78	10.78	10.81	10.82
Netherlands	5.88	5.69	6.37	5.50	5.25	4.95	4.75	4.25	4.12	4.38	4.25
Spain	12.27	9.52	8.37	8.23	6.78	6.67	5.58	5.83	10.17	n.a.	10.25
Sweden	11.83	12.49	9.20	9.49	9.20	9.05	9.20	9.32	9.58	10.70	10.29
United Kingdom	9.33	11.49	10.79	9.07	8.67	8.38	8.38	9.01	8.26	7.98	7.28
Australia	12.27	19.40	14.91	10.47	10.34	10.08	9.92	10.44	9.83	10.40	11.60
Japan	4.91	4.91	2.69	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	13.50	17.62	19.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	21.94	12.99	8.84	8.68	8.64	8.85	9.49	9.55	10.51	10.97	11.61
Brazil	273.03	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	48.67	72.98	104.03	96.43	110.67	133.04	155.67	153.86	75.16	54.51	50.04
Philippines	47.14	16.45	9.55	12.97	13.18	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	2.91	2.94	2.10	3.57	3.69	3.23	2.92	2.97	2.97	3.02	n.a.

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1984	1985	1986	1987			1988				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	8.49	8.02	6.64	7.58	7.80	7.21	6.90	6.77	6.90	7.20	7.75
Canada	10.00	9.40	8.35	8.50	8.70	8.90	8.65	8.55	8.65	8.94	9.32
Belgium	10.85	9.89	7.60	7.35	7.15	6.95	6.54	6.34	6.24	6.24	6.24
France	10.69	9.12	6.37	6.25	6.62	6.56	6.06	7.44	8.25	7.88	n.a.
Germany	5.75	4.80	4.85	4.10	3.80	3.65	3.23	3.28	3.40	3.55	3.60
Ireland	15.13	12.00	14.06	9.25	9.19	8.81	8.62	8.94	8.38	8.13	7.38
Italy	16.88	15.13	11.37	12.00	11.62	11.50	10.75	11.13	11.13	10.38	11.00
Netherlands	5.75	5.75	6.19	5.25	4.94	4.58	4.32	4.06	4.06	4.13	4.19
Portugal	24.57	20.71	16.07	14.66	14.30	14.34	13.97	13.43	13.03	n.a.	n.a.
Spain	12.21	10.51	11.79	15.84	14.44	13.59	12.30	12.01	11.06	10.90	11.11
Switzerland	5.00	4.75	4.50	4.06	4.06	3.56	1.69	1.81	1.88	2.13	2.75
United Kingdom	9.88	12.75	11.25	9.19	8.87	8.94	8.31	9.38	8.56	8.31	7.81
Australia	12.90	19.76	15.10	13.55	12.15	11.25	10.85	10.90	11.50	11.55	12.87
Japan	6.33	7.03	4.34	3.88	3.90	3.90	3.85	3.80	3.80	3.75	3.80
New Zealand	15.00	20.00	24.25	20.30	16.90	17.70	17.00	17.35	n.a.	17.20	15.75
South Africa	22.78	13.35	8.55	8.90	8.50	8.90	9.60	10.25	10.90	11.85	12.65
Chile	20.68	22.42	19.56	31.37	34.49	15.25	11.35	10.89	21.41	20.84	11.09
Hong Kong	8.25	6.50	4.62	6.19	4.06	1.50	3.00	3.87	4.12	5.13	7.31
Indonesia	19.00	15.00	19.50	17.37	17.50	17.50	17.00	18.50	22.50	18.50	19.00
Korea	8.00	8.00	8.00	7.50	7.50	7.50	n.a.	n.a.	n.a.	n.a.	n.a.
Malaysia	10.30	8.20	6.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.70	3.85
Philippines	33.21	14.61	8.31	11.81	n.a.	10.55	13.80	n.a.	n.a.	n.a.	n.a.
Singapore	7.00	5.88	3.94	4.50	4.00	3.25	3.13	3.13	3.19	n.a.	n.a.
Taiwan	7.85	4.10	3.87	3.23	3.13	3.09	4.12	4.47	4.23	4.48	n.a.

Commercial bank deposit rates

at or near end of month

	1984	1985	1986	1987		1988					
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	8.34	7.72	6.26	7.40	7.72	7.10	6.67	6.57	6.69	7.05	7.54
Canada	10.05	9.40	8.15	8.45	8.57	8.40	8.50	8.45	8.80	9.00	9.30
Austria	7.50	6.50	5.50	4.75	4.45	4.25	4.40	4.05	3.90	3.90	3.95
Belgium	10.63	9.63	7.44	6.80	6.66	6.69	6.31	6.25	6.19	6.00	6.06
Denmark	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.25	4.40	4.80	3.90	3.70	3.50	3.20	3.20	3.25	3.40	3.40
Ireland	14.63	11.87	13.75	8.62	9.12	8.62	8.50	8.75	8.25	7.75	7.25
Italy	11.64	13.21	10.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	9.50	9.50
Netherlands	5.69	5.81	6.06	5.12	4.81	4.50	4.21	3.94	4.00	4.06	4.06
Norway	12.75	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	28.00	20.00	15.00	14.00	14.00	14.00	14.00	13.50	13.50	13.50	n.a.
Spain	11.64	9.64	8.67	9.11	9.32	9.48	9.39	9.30	9.17	9.05	n.a.
Sweden	11.45	12.18	9.93	9.70	9.70	9.45	9.55	9.55	9.95	10.95	10.60
Switzerland	4.50	4.50	4.25	3.81	3.81	3.37	1.44	1.56	1.63	1.88	2.50
United Kingdom	9.88	11.75	11.19	9.12	8.81	8.81	8.75	9.25	8.37	8.13	7.83
Australia	12.75	18.80	15.56	11.25	12.28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	6.38	7.04	4.55	4.63	4.46	4.42	4.33	4.41	4.38	4.25	4.30
New Zealand	15.25	19.98	23.50	19.85	16.85	16.85	16.00	n.a.	14.60	15.50	15.50
South Africa	22.88	13.20	8.65	9.35	9.30	10.25	11.20	11.90	11.90	12.70	14.00
Argentina*	31.23	5.40	8.41	9.10	8.92	14.00	15.12	14.30	17.10	18.10	18.70
Brazil	27.00	18.00	220.00	14.00	15.00	17.50	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	20.68	23.60	20.98	30.30	31.53	14.84	11.75	9.25	19.84	17.73	9.77
Hong Kong	8.25	6.50	4.62	6.19	4.06	1.50	3.00	3.87	4.12	5.13	7.31
Korea	6.00	6.00	6.00	6.00	6.00	6.00	n.a.	n.a.	n.a.	n.a.	n.a.
Malaysia	9.58	7.00	6.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	47.45	72.90	94.30	94.20	103.74	120.35	118.99	118.80	75.97	53.01	49.38
Philippines	31.01	12.34	7.75	8.56	9.50	11.19	9.85	9.27	10.09	n.a.	n.a.
Singapore	6.13	5.26	4.00	4.31	3.69	3.13	3.06	n.a.	n.a.	n.a.	n.a.
Taiwan	6.50	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25
Venezuela	12.50	8.00	8.00	8.92	8.95	8.95	8.97	8.94	8.85	8.96	n.a.

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987			1988				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	11.61	9.49	7.79	9.04	9.10	8.95	8.42	8.39	8.82	9.07	9.31
Canada	11.66	10.04	9.23	10.21	10.50	10.34	9.74	9.61	10.13	10.36	10.38
Austria	8.03	7.81	7.33	7.26	7.13	6.89	6.83	6.80	6.71	6.62	6.61
Belgium	11.56	9.60	7.70	8.32	7.98	8.04	7.58	7.38	7.65	7.62	7.89
Denmark	14.60	9.67	11.70	12.56	11.84	12.05	11.18	10.91	11.22	11.44	n.a.
Finland	10.73	10.58	7.80	7.77	7.94	7.67	7.40	7.40	7.41	7.41	n.a.
France	12.70	11.33	9.89	10.95	10.46	10.57	9.73	9.33	9.61	9.42	9.38
Germany	7.17	6.57	6.25	6.62	6.46	6.51	6.50	6.28	6.30	6.47	6.68
Ireland	14.90	11.84	12.97	11.05	10.23	10.45	10.61	10.41	10.12	9.74	9.60
Italy	14.52	13.66	10.05	11.41	11.25	10.50	10.29	10.30	10.29	10.39	10.49
Netherlands	7.72	6.98	6.40	7.05	6.37	6.32	6.17	5.99	6.01	6.21	6.36
Norway	12.00	13.00	13.24	13.10	13.26	13.29	13.35	13.16	13.24	13.24	n.a.
Portugal	22.23	16.64	14.49	15.30	15.60	14.80	14.70	14.50	n.a.	n.a.	n.a.
Spain	13.93	12.52	10.36	14.24	13.34	13.14	12.48	11.91	11.82	11.35	11.63
Sweden	12.04	12.11	10.66	11.42	11.51	11.39	11.30	10.96	11.05	11.41	11.21
Switzerland	4.60	4.42	4.05	4.12	3.86	3.95	3.94	3.93	3.92	3.77	3.98
United Kingdom	10.25	10.35	10.17	9.22	9.23	9.47	9.26	9.10	8.96	9.14	9.17
Australia	13.50	14.85	13.40	13.65	13.30	12.85	12.40	12.30	11.90	11.50	12.30
Japan	6.47	5.92	4.61	4.58	5.00	4.88	4.23	4.36	4.43	4.45	4.60
New Zealand	16.90	17.00	16.00	15.70	14.90	14.30	14.00	13.30	13.08	13.15	13.05
South Africa	16.55	18.09	15.06	15.44	15.30	15.70	16.80	16.52	16.60	16.48	16.40
Philippines	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Venezuela	14.00	12.00	12.00	12.50	12.50	12.50	n.a.	n.a.	n.a.	n.a.	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1984	1985	1986	1987			1988				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	10.75	9.50	7.50	9.00	8.75	8.75	8.50	8.50	8.50	8.50	9.00
Canada	11.25	10.00	9.75	9.75	9.75	9.75	9.75	9.75	9.75	10.25	10.25
Austria	9.25	9.00	9.00	8.50	8.50	8.25	8.25	8.25	8.25	8.25	8.25
Belgium	14.00	11.50	9.75	8.75	8.75	8.75	8.75	8.50	8.50	8.50	8.50
Denmark	10.50	8.50	8.00	9.50	9.50	9.50	9.50	9.50	9.50	9.50	n.a.
Finland	10.68	10.37	8.81	8.97	9.02	8.99	9.03	9.05	9.07	n.a.	n.a.
France	12.00	10.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.25	6.75	6.25	6.25	6.25	6.00	6.00	6.00	6.00	6.00
Ireland	15.75	12.50	15.75	12.00	12.00	11.50	11.50	11.50	11.50	11.25	11.25
Italy	18.00	15.88	13.00	13.00	13.00	13.00	12.50	12.62	12.62	12.63	12.63
Netherlands	6.25	6.25	7.12	5.50	5.25	4.87	4.62	4.06	4.12	4.19	4.25
Norway	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	29.00	22.50	17.50	18.50	18.50	18.50	18.50	18.00	18.00	18.00	n.a.
Spain	15.84	14.75	14.22	16.48	16.38	16.34	16.10	15.76	15.42	15.23	14.79
Sweden	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	12.00
Switzerland	6.00	6.00	5.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	9.50	11.50	11.00	9.50	9.00	8.50	8.50	9.00	8.50	8.00	7.50
Australia	14.00	21.00	18.50	14.00	14.00	14.00	13.50	13.50	13.50	n.a.	n.a.
Japan	5.50	5.50	3.75	3.37	3.37	3.37	3.37	3.37	3.37	3.38	3.38
New Zealand	14.00	21.00	23.00	22.50	19.75	18.75	18.75	n.a.	n.a.	n.a.	n.a.
South Africa	24.00	16.50	12.00	12.50	12.50	12.50	13.00	13.00	14.00	14.00	15.00
Argentina*	32.05	7.30	11.30	9.80	9.98	14.80	15.80	15.00	17.80	17.92	19.50
Brazil**	31.00	19.00	250.00	18.00	18.00	19.50	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	60.82	33.34	29.13	37.33	40.20	30.99	21.22	20.51	25.49	31.64	21.88
Hong Kong	11.00	7.00	6.50	6.50	6.00	5.50	5.25	6.00	6.00	6.50	7.50
Indonesia	23.50	18.75	19.75	21.00	20.50	20.50	20.50	20.50	20.50	21.00	22.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	12.00	10.50	10.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	47.54	65.66	95.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	44.00	15.00	10.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	9.40	7.20	6.10	6.10	6.10	6.10	5.98	5.93	5.85	5.85	5.85
Taiwan	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Venezuela	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	n.a.

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987			1988				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	12.25	10.15	8.88	10.25	10.30	9.90	9.38	9.45	9.85	10.25	10.38
Canada	12.42	10.74	10.18	11.22	11.32	10.95	10.37	9.96	n.a.	10.97	10.86
France	12.94	11.76	10.18	11.28	10.96	10.92	10.38	9.91	10.03	9.78	9.77
Germany	7.20	6.90	6.50	7.00	6.70	6.70	6.70	6.70	6.60	6.60	6.80
Netherlands	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Spain	18.32	14.92	13.40	17.39	17.05	16.15	15.79	14.68	14.78	12.89	12.89
Sweden	12.33	13.25	11.99	12.78	12.56	12.31	12.20	11.83	11.94	12.20	12.15
Switzerland	5.09	4.93	4.72	4.87	4.85	4.60	4.50	4.39	4.39	4.29	4.36
United Kingdom	11.64	11.47	11.71	10.75	10.59	11.11	10.76	10.82	10.66	10.55	10.69
Japan	7.10	6.79	5.93	5.95	5.59	5.32	5.06	5.03	4.99	4.93	4.95
Korea	15.00	13.60	12.80	12.50	12.90	12.80	12.80	13.20	13.70	13.90	n.a.
Venezuela	18.00	17.00	17.00	18.00	18.00	18.00	n.a.	n.a.	n.a.	n.a.	n.a.

Key to data in tables

I. International markets

Data on the international banking market size are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countries, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An international bond issue may be either a Eurobond issue or a foreign bond issue. A Eurobond issue is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A foreign bond issue is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An international bank credit may be either a Eurocurrency credit or a foreign credit. A Eurocurrency credit is one denominated in a currency that is foreign to the country of the bank office extending the credit. A foreign credit is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances).

Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly*.

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina — 7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan — Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 3-month Treasury bill repos reported by the Bank of Spain until January 1988. As of February 1988 secondary market yield on 3-month Treasury notes (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances until July 1987. As of August 1987 3-month commercial bills.

South Africa — 90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK\$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.
South Africa — 3-month negotiable certificates of deposit.

Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.

Sweden — 3-month certificates of deposit.

Switzerland — 3-month time deposits.

Taiwan — maximum rate for 3-month time deposits.

Thailand — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.
Australia — secondary market yield for 10-year Treasury bonds.

Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.

Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.

Japan — secondary market average yield on Central government bonds with a maturity of 5 years or more.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.

New Zealand — average yield on government bonds maturing after 5 years.

Norway — 5% government bond of 1996 until December 1982. New series as of January 1983, average yield of long-term government bonds.

Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of indebtedness.

Portugal — yield of 4% Centenary Loan of 1940.

South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.

Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).

Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index until December 1982. As of January 1983 U.S. Treasury 30-year constant maturity index.

Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.
Austria — overdraft rate for prime borrowers, including commission.

Australia — overdraft rate. Maximum indicator rate applying to loans of A\$100,000 or more for major trading banks.

Belgium — prime overdraft rate.

Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.

Canada — prime rate.

Chile — average prime rate of six major commercial banks.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime lending rate set by the Hong Kong Association of Banks.

Indonesia — prime rate for domestic affiliates of foreign companies.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — standard rate of interest on short-term loans of especially high credit standing.

Korea — prime rate.

Malaysia — Bank of Commerce Berhad base lending rate.

Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class, large borrowers.

Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.

Portugal — maximum rate for 90- to 180-day loans.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.

Sweden — overdraft rate for prime industrial borrowers, commission not included.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.

Thailand — prime rate.

United Kingdom — clearing bank base lending rate. A spread above base rate is often added.

United States — prime rate of Morgan Guaranty Trust Company.

Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.

France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.

Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.

Japan — secondary market yield for industrial bonds.

Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- to 5-years.

Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.

Spain — Bank of Spain secondary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).

Sweden — Central Statistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.

United Kingdom — Financial Times secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.

United States — Salomon Brothers Index of new issues yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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The U.S. budget, saving, and investment, 1

Objectives, 1

Current policy, 3

The "high growth" delusion, 4

Flexibility and balance, 5

Policy vacillation, 6

Conclusion, 8

Statistical appendix, 9

The U.S. budget, saving, and investment*

Last December's half-hearted two-year budget accord conceded that election-year politics would preclude major, specific legislation before 1989 to work down the federal deficit. Still, the establishment of the National Economic Commission expressed bipartisan recognition — albeit somewhat inchoate — that the most significant economic challenge facing the next Administration and Congress would be to develop a credible budget plan.

The budget debate is "inchoate" because it too often fails to place the issue in its proper, macroeconomic context. Instead, the spending and taxing procedures of the U.S. government practically guarantee that particularist concerns delay and dominate decision making. In the process, the longer-term forces shaping overall U.S. performance in a competitive global economy habitually receive short shrift. These wider consider-

ations nonetheless point to three principal objectives to be served by a forthright fiscal plan.

Objectives

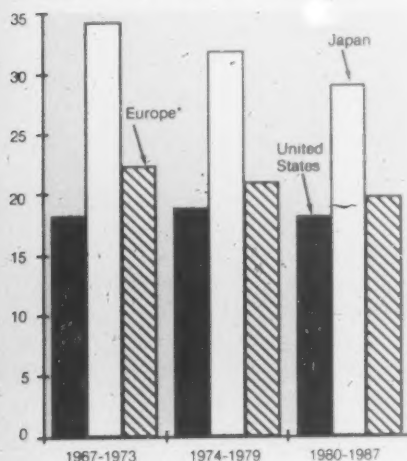
The first objective is increased U.S. investment to keep abreast of our free-world competitors. Japan and many European countries now enjoy living standards within shouting distance of our own, and arguably higher in several cases. At the same time, gross fixed capital formation in 1980-87 stood at 29% of GNP in Japan and an average of 20% in the four major European countries, versus just 18% of GNP in the United States (see Chart 1). The disparity, at least vis-à-vis Japan, is too large to be offset by any feasible superiority of U.S. investment productivity (see Table 1). The relative shortfall in the quantity of U.S. investment therefore bodes poorly for the nation's future global standing.

Second, the United States has to start positioning its economy now to cope with the strains that will arise early in the twenty-first century once the baby-boom

Chart 1

Investment effort

gross fixed capital formation, percent of GNP



*Germany, France, Italy, and United Kingdom

*Statement submitted by Rimmer de Vries, Senior Vice President and Chief Economist, Morgan Guaranty Trust Company, to the National Economic Commission session in Washington, D.C., on August 9, 1988.

Table 1
Investment productivity
1980-87 annual averages

	Real GNP growth	Invest- ment effort*	Invest- ment produc- tivity**
United States	2.4	18.1	13.1
Canada	2.9	21.0	13.7
Japan	3.9	29.0	13.3
Germany	1.5	20.5	7.2
France	1.7	20.5	8.1
Italy	2.3	21.7	10.5
United Kingdom	1.8	16.7	11.0
Korea	7.0	31.0	22.5
Taiwan	7.7	23.3	33.3

*Gross fixed capital formation as percent of GNP.

**Ratio in percent of real GNP growth to investment effort.

generation begins to retire. The larger the nation's economic pie by that time, and the faster it continues to grow, the easier it should be to satisfy the working population while assuring retirees the increasing slice that their numbers and generational equity will demand. To achieve continuing increases in per capita living standards for all, even as labor force growth stagnates, net investment in the U.S. economy must be on the order of 8% of GNP. Last year, by contrast, net investment was a mere 5.3% of GNP.

Third is the need to arrest the nation's slide into ever-deepening foreign indebtedness (see Table 2). Last year's net domestic investment was two-thirds financed by net capital inflows from abroad. Definitionally, net

capital inflows are the counterpart of the nation's external trade deficit. Though the red ink on merchandise trade is running considerably less this year than in 1987, it may amount to some \$125 billion for 1988 as a whole and \$100 billion or more next year. Even this reduced magnitude is not sustainable indefinitely: the associated deficit on current account could add another \$150 billion this year to U.S. net foreign liabilities, and a further \$130 billion in 1989, carrying them well above the half-trillion-dollar mark by the end of next year.

The U.S. foreign debt buildup heightens financial risk worldwide: currency and capital markets everywhere are mesmerized and destabilized by the unprecedented absolute scale of the U.S. debt accumulation and the trade deficit that feeds it. The external imbalance at the same time may prove political poison for the relatively liberal trade and investment practices that have done so much to bind the free-world nations together since World War II. Further, and perhaps most disturbing, the imbalance may betoken U.S. incapacity to sustain *Pax Americana*.

At root, the trade deficit manifests a deficiency of national saving relative to investment. Net national saving sank below 2% of GNP in 1987, down from 5.5% at the beginning of the 1980s. To procure resources domestically to underwrite the 8%-or-so of GNP that would constitute an adequate investment rate in the years ahead will require a quadrupling of the 1987 net national savings rate to a level not seen since the mid-1960s (see Chart 2).

How can this be accomplished? The private sector plus

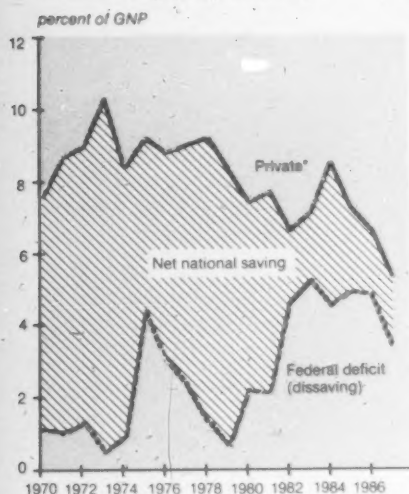
Table 2
U.S. net international investment position
billions of dollars

	Position at end-1986	Capital flows 1987	Adjustments*	Position at end-1987
Net international investment position	-269	-135	36	-368
U.S. assets abroad	1071	76	21	1168
U.S. official reserve assets	49	-9	6	46
Other U.S. government assets	90	-1	-1	88
Private assets	933	86	14	1033
Direct investment	260	44	5	309
Securities	133	4	10	147
Other	540	38	-1	577
Foreign assets in the United States	1341	211	-16	1536
Foreign official reserve assets	242	45	-4	283
Other foreign assets	1098	167	-12	1253
Direct investment	220	42	0	262
Securities	400	35	-12	423
Other	478	90	0	568

*For coverage, exchange rate, and price changes, statistical discrepancy, and other value adjustments.

Chart 2

U.S. saving propensities



*Including state and local governments and excluding capital depreciation.

state and local governments, which run surpluses, contributed the equivalent of 5.3% of GNP to overall net national saving last year. But this positive contribution was largely offset by federal government dissaving via the budget deficit of some 3.4% of GNP. For much of the postwar period private saving has hovered around 6% of GNP but, for reasons that are not wholly clear, has drifted lower during the 1980s. Nor is it clear whether policies can be devised — regardless of political acceptability — that would be effective in raising private saving significantly without aggravating government dissaving at least dollar-for-dollar.*

Altogether, no persuasive alternative presents itself but to solve the shortfall in U.S. national saving, through an end to government dissaving. This, indeed, is the key macroeconomic prize to be won through steadfast implementation of the Gramm-Rudman-Hollings (GRH) budget targets. The truth of this contention can be established by examining four of the possible budget and supporting policy scenarios that might unfold during the next presidential term.

Current policy

The first scenario assumes that last December's two-year budget accord is respected but that no new fiscal initiatives are undertaken. Because U.S. economic growth this year has held up much better than most observers expected, dipping only from an

*The heavily tax-favored Individual Retirement Accounts permitted prior to the 1986 tax reform seem to have been at least modestly successful in boosting private saving, but at the same time increased government dissaving.

upward-revised 5% during the four quarters of 1987 to 3.3% during the first two quarters of 1988, the federal deficit on a unified basis should end this fiscal year within a cat's whisker of last year's \$150 billion outcome. This performance is in fair conformity with the \$144 billion GRH target for FY1988. For FY1989 the GNP outlook continues to promise growth of 3% or more through the March quarter, followed by more subdued growth thereafter as the boost from exports begins to peter out. This outlook supports a federal deficit projection in line with the \$136 billion GRH target for next fiscal year.

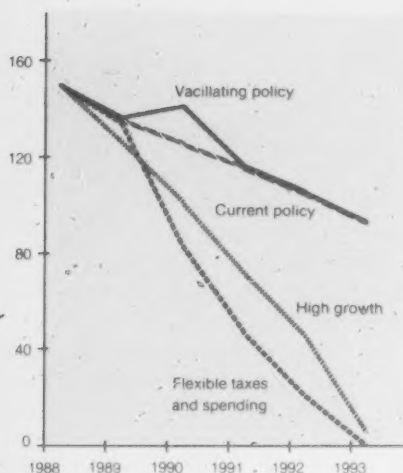
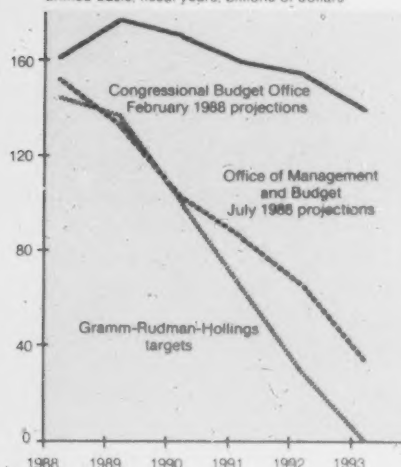
Unfortunately this does not mean that all is well on the budget front — not, certainly, on the basis of current-law fiscal policy in conjunction with a credibly counterinflationary monetary policy. Beyond FY1989, assuming the economy proceeds along its potential growth path of about 2.6% annually — aided by renewed, but moderate, decline in the dollar — there is little reason to postulate a federal deficit trend substantially better than is depicted by the Congressional Budget Office (CBO). CBO's "baseline" outlook last February put the FY1993 deficit at \$110 billion (see Chart 3). Reestimated today, this figure might be \$20 billion lower (see Table 3), thanks to the bonus from this year's strong real GNP gain and using slightly more favorable technical assumptions than CBO's concerning both revenue and spending. Even so, the deficit still would amount to 1.3% of GNP in FY1993 instead of zero as GRH mandates.

Quite as troubling, this baseline "current policy" scenario foresees no progress at all on

Chart 3

Federal deficit outlook

unified basis, fiscal years, billions of dollars



the other twin deficit. Goods trade would be in the red five years from now by much the same magnitude as today. The current account deficit would be substantially greater than today, reflecting steeply rising net interest payments on a net foreign debt that would reach some \$1.3 trillion — more than triple the end-1987 figure. Such unsatisfactory results on the external front could only exacerbate the financial and political risks to the United States touched on above. Nor would domestic economic performance be up to the longer-term need. Table 4 shows that net saving would reach some 3.6% of GNP by 1993 — almost twice last year's level but still less than half what an adequate investment effort would require. Altogether, muddling on along the current-policy path would do little to correct the existing deficiencies in U.S. economic performance.

The "high growth" delusion

President Reagan's last budget proposal counted on economic growth averaging over 3% annually to wipe out most of the federal deficit by 1993. Vice President Bush also apparently would depend on high economic growth to eliminate the deficit with no increase in taxes. His proposal includes a "flexible freeze" on spending. The freeze would aim to hold growth in overall spending close to zero in real terms, or close to the rate of inflation in nominal terms. The flexibility would accommodate the upward momentum behind Social Security, Medicare, and other entitlement programs, provided cuts were made in discretionary spending.

The Vice President's thinking is correct inasmuch as low growth — let alone recession — would be counterproductive for deficit reduction. Moreover, growth would not have to run unthinkable high to eliminate the budget deficit by FY1993. Sustained growth averaging 3% annually would suffice, were spending effectively restrained. In addition, Table 5 indicates that the fast growth of economic activity would carry forward the vigorous expansion of business investment that has been a highly positive feature of 1988 to date.

Unfortunately, without market- and investment-oriented structural improvements in the U.S. economy — supply-side improvements that are nowhere in sight — pursuit of a 3% growth rate in the years ahead would strain domestic resources. Although capacity utilization in U.S. manufacturing is several percentage points below the peaks recorded in 1973 and 1979, it stands 2.6 percentage points above its 20-year average. Besides, the nation's 5.4% unemployment rate is within the 5%-6% range that most economists believe to be the lowest consistent with stable inflation.

Whereas the "current policy" baseline scenario with a 2.6% growth rate would keep inflation to about 4.7% over the next four years, boosting growth instead to 3% and retaining the same moderate dollar decline would kick up the inflation rate an average of one percentage point during the period; by 1993 inflation could be pushing 6.5% and accelerating. Moreover, on this dollar assumption, the nation's trade deficit would worsen beyond 1989 because the higher inflation would eat away U.S. competitiveness and the fast

Table 3

U.S. economic policy scenarios
selected indicators in 1993

	Current policy	High growth	Flexible taxes and spending	Vacillating policy
Federal deficit*	-92	-6	7	-93
Federal Funds rate, 1989-93 peak (%)	8.9	8.1	8.7	9.1
Dollar real effective exchange rate**	-9	-10	-14	-10
Real GNP***	2.6	3.0	2.4	1.9
GNP deflator	4.8	6.7	4.6	4.0
Unemployment (%)	5.3	4.2	6.4	7.1
Billions of dollars				
Trade balance (CIF)	-124	-142	-10	-84
Current account	-170	-176	-35	-158
Net external assets	-1290	-1310	-910	-1250

*FY1993, billions of dollars, unified budget basis.

**Broad index, cumulative percent change from July, 1988.

***1989-93 annual average percent change.

growth of activity would have to be domestic-demand-driven. In principle, the trade damage could be contained by aggressively devaluing the dollar in order to twist high growth in favor of external demand. The price, however, would be still higher inflation — perhaps into double digits by the early 1990s.

These inflation and external risks belie the notion that high growth can bring the budget deficit to a painless end. It could defer political pain for a time. But the eventual economic cost of adjustment then would be all the greater.

Flexibility and balance

Most often when a country faces the need to correct unsustainable imbalances it is rigidity on some single issue that does most to obstruct progress. The hang-up may concern the exchange rate, public-sector wages, or perhaps some treasured spending program.

In the U.S. situation of today, the principal hang-up seems to be taxes, though entitlement spending comes in a close second. If growth is held to a prudent pace, an inflexible refusal to raise taxes would permit the budget to be balanced by FY1993 only by outright spending cuts. The cuts would have to be on the order of 1.5% per annum in real terms relative to spending under the flexible freeze proposal, a spending stringency that strains credulity.

It therefore must be recognized that flexibility is needed on both taxes and spending if there is to be any chance of developing a prudent and credible budget strategy and policy package for the next four years. Obviously,

Table 4

Saving and investment
percent of GNP

	1993				
	Base 1987	Current policy	High growth	Flexible taxes and spending	Vacillating policy
Gross domestic saving	12.6	14.2	14.8	15.0	12.7
Private sector	15.0	14.4	13.3	14.1	13.3
State and local governments	1.0	1.3	1.6	0.8	0.9
Federal government	-3.4	-1.5	-0.1	0.1	-1.5
Net domestic saving*	1.9	3.6	4.0	4.3	1.8
plus: Net foreign capital inflows	3.5	2.2	2.0	0.6	2.4
equals: Net domestic investment	5.4	5.8	6.0	4.9	4.2
Gross fixed capital formation**	15.0	15.4	15.6	14.5	14.1
Personal saving (percent of disposable income)	3.8	4.5	3.1	5.0	14.1

*Defined here as gross domestic saving less economic depreciation plus statistical discrepancy.

**Gross private domestic investment less inventory investment.

Table 5
Real final demand growth,
1989-93
annual average percent

	Current policy	High growth	Flexible taxes and spending	Vacil- lating policy
Consumption	2.4	2.6	1.9	2.0
Investment	2.9	3.8	2.2	0.8
Exports	6.8	7.6	7.8	6.3
Imports	3.3	4.1	2.9	3.5
Government	1.0	0.5	0.8	1.1
GNP	2.6	3.0	2.4	1.9

too easy acceptance of higher taxes could open the door to spending laxity. But a judicious flexibility on tax increases may be the sole means available to purchase spending restraint.

The benefits of deficit reduction within the GRH horizon depend more on the overall magnitude of deficit reduction than its composition. From an efficiency standpoint, a fiscal package should preferably rely on consumption taxes and further cuts in consumption-subsidizing expenditures; if income taxes must be touched, it should be by closing loopholes rather than by higher rates. This tilt would in principle help shift resources toward more productive capital formation — something not adequately addressed in the 1986 tax reform. To be politically viable, however, a fiscal package will have to be carefully crafted to elicit sacrifice from all segments of society yet also meet diverse economic and social concerns. Major elements of such a package likely would include a temporary freeze in nominal terms on both defense and nondefense outlays; a slowing of growth in entitlement spending; increased gasoline and sin taxes; and a closing of loopholes in personal and corporate income taxes.

Suppose the package were legislated in time to be phased in over a three-year period, providing *ex ante* deficit savings of \$40 billion in FY1990, \$80 billion the next year, and \$120 billion in FY1992 and the years thereafter. The *ex post* benefits for both the budget and the economy would depend crucially on the success or otherwise of monetary policy in achieving real GNP growth approximately at its potential rate. To compensate for the drag on

growth implicit in the fiscal package, monetary policy would have to ease and accept a lower dollar trajectory than in the baseline scenario.

The outcome summarized in Tables 3, 4, and 5 as the "Flexible taxes and spending" scenario would meet the GRH mandate to eliminate the budget deficit by FY1993 but yield real GNP growth slightly below potential. It thereby would envisage an unemployment rate of 6.4% by 1993, or one percentage point higher than today. This additional slack, while hardly welcome in itself, would serve to hold down inflation despite the lower dollar and, by contributing to domestic demand restraint, create room for external adjustment. By 1993 the trade deficit would be slashed by over \$100 billion relative to the baseline, and the current account deficit by considerably more, thanks to lower interest rates. The foreign debt buildup would be much attenuated. U.S. net liabilities would be distinctly below \$1 trillion in 1993, instead of the \$1.3 trillion foreseen on the baseline. External risks to the U.S. economy would be reduced accordingly. Moreover, net national saving would run significantly higher — by some 0.7% of GNP — than under current policies, which would mark a good first step toward an adequate saving effort. Thus a flexible and balanced fiscal program, resolutely pursued, can yield a handsome payoff within the next presidential term.

Policy vacillation

Unfortunately, even with the best of intentions, all may not go well. Negotiated by the political calendar, as it would be, fiscal ad-

justment may prove inopportune in its timing, perhaps - being launched just when the economy is losing momentum for other reasons. Or, recalling the example of the late 1970s, policy vacillation may engender a confidence-crippling malaise. Recession then may be the outcome. Almost surely that would doom a multiyear deficit-reducing package.

Though not at present the central expectation, it is not hard to see how a mild recession could develop before the end of 1989 in the train of policy vacillation. The rise in U.S. interest rates and the strength of the dollar this year will take toll of both domestic and net external demands on the economy six to nine months hence, perhaps more severely than most observers assume. Yet inflation expectations currently are on the rise, in part because of this summer's drought, and may not quickly back down. Moreover, following this year's elections, the Federal Reserve and the financial markets may judge the economy still to be growing too fast. They also may take a jaundiced view of fiscal promises in advance of fiscal delivery, especially if the incoming administration looked likely to give way to the myriad demands for higher spending. Interest rates could rise considerably above current levels, eventually forcing the economy into recession.

That would hardly be the moment to embark on fiscal adjustment, at least not consciously. Indeed, there is a risk here that the first installment of a contractionary fiscal package could come on stream just in time to compound a mild recession precipitated by fading trade gains and protracted high interest

rates. In that event it would be neither rational nor politically plausible to persevere with subsequent cuts as specified in the package until the economy had staged a convincing recovery; after all, to intensify fiscal contraction in recessionary conditions would merely prolong the downturn and compound the underlying budget problem. Thus in the "vacillating policy" scenario presented in Tables 3, 4, and 5, a brief recession in 1990 coinciding with a \$40 billion dose of deficit-reducing measures causes the budget deficit three years later to be no lower than under the current-policy scenario envisaging no recession and no effort at deficit reduction. The implication is not that fiscal correction will not work but rather that its accomplishment will be gravely impeded if circumstances or policy vacillation undermine confidence.

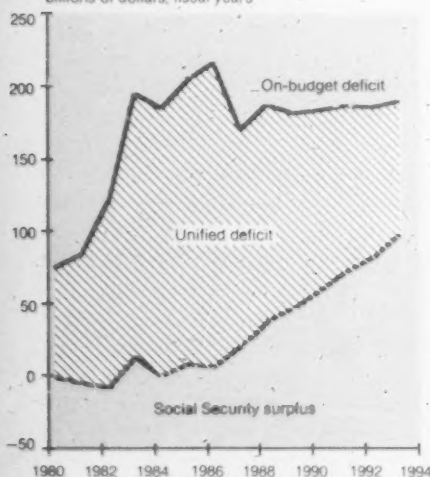
A fresh pretext for fudging the fiscal issue has blossomed this year in the form of the mounting surplus in the Social Security system (see Chart 4). Under the GRH law these funds are already "spoken for" — they could account for almost half the deficit reduction planned between now and 1993. This means that even if the GRH cuts are achieved, the on-line budget still will be \$70-\$100 billion in deficit in FY1993.

Yet, proposals already have been made that would squander the surplus. One is to use the surplus to bankroll a public investment bank which, among other things, could rescue stricken banks; another is to spend the surplus on the nation's decaying infrastructure; and a third is to fund more generous Medicare benefits. As the surplus grows, so do the number of proposals to spend it.

Chart 4

The federal budget and the Social Security system

billions of dollars, fiscal years



The problem is that these proposals ask the surplus to do three things at once: first, to do what it was originally intended for, that is, to help support the baby-boom generation when it retires; second, to fund excess spending in the rest of the federal budget; and third, to launch important people's pet programs. Only one objective can be achieved at a time. Currently, productive investment of the retirement fund is being delayed until the overall budget can be balanced. Some of the new proposals go a step further, sacrificing both budget balancing and retirement provision for the sake of current programs.

The risks to the Social Security surplus highlight the importance of rapid progress on the budget deficit. Even if the GRH targets have been achieved in 1993, further progress on the budget will be needed. The on-line deficit must be eliminated so that the Social Security surplus can begin to be productively invested. This could involve buying up government securities, which would free up saving for private investment. Or it could be accomplished by privatizing the surplus and allowing individuals to direct its investment.

Higher saving and investment are the fundamental rationale for implementation of the GRH budget targets and the productive investment of the Social Security surplus. The alternative is continued "crowding out" of private investment by government borrowing, and continued dependence on foreign capital. Ultimately, this would yield a weak, undercapitalized U.S. economy in a poor position to meet the competitive pressures of the next decade and the demographic challenge of the next century.

Conclusion

The fiscal actions to be taken in the next four years will have major implications beyond the narrowly budgetary domain and the limited time horizon of the Gramm-Rudman-Hollings targets. Neglect or vacillation would undermine confidence, expose the U.S. and world economies to financial instability and trade protectionism, and leave the U.S. economy starved of saving and investment as well. Though early action could not extinguish these risks, delay would only compound the ultimate cost of corrective action.

Little can be done to insulate the economy from shocks or mistakes. But something can be done to sustain confidence. The recommendations to be put forward by the National Economic Commission can be constructive for confidence, provided they are both firm and reflective of developing bipartisan consensus. Still more important is that the incoming Administration and Congress take up the fiscal issue promptly next January, set goals with clarity, and move systematically toward their implementation.

In particular, U.S. fiscal action should not be made contingent on successful negotiation of a complex, broad-ranging, and coordinated international program for the better management of the global economy. Mere promise of U.S. fiscal action, however, is unlikely to induce compensating policy changes by the other G-7 members; some still bemoan, for example, the inflationary excesses that swept the world economy following the launch of the "locomotive" (more correctly, "convoy") strategy at the Bonn Summit of 1978, never

mind that much of the inflation in fact emanated from the second oil shock.

International cooperation remains a laudable objective. Potentially it could alleviate today's burden of adjustment on the U.S. economy. But in this increasingly nationalistic world, it is hard to muster volunteers in Asia or Europe willing to surrender trade surpluses with the United States any sooner than they must. If the United States is seen to forge ahead with fiscal correction, by contrast, U.S. trade partners will see their self-interest in basing their growth more firmly on their own domestic potential — as Japan, for one, has done during the past twelve months.

Once the November elections are out of the way, the U.S. government will enjoy its quadrennial opportunity to correct shortcomings of the past and set a new economic course to boost national saving and investment for prosperity in the decade ahead. The opportunity could, of

course, be wasted, as it would be if the new Administration and Congress vacillate on the macroeconomic issue, catering instead to myriad special demands. Confidence then would erode and inflation fears intensify. The economy would slide deeper into the hole of mounting foreign debt and financial instability.

The opportunity will be grasped best by unwavering reassertion of fiscal discipline: first, to honor the GRH targets; from there, going on to translate the financial surpluses of the Social Security system into productive real investment. A credible initiative to these ends, if launched promptly by the next President and Congress with the active support of the Federal Reserve, not only would advance basic domestic goals, it also would enhance U.S. standing around the world, and lay to rest today's doubts of U.S. capacity for continuing leadership.

Statistical appendix

*For key to data in tables
see pages 18 and 19.*

Effective exchange rates —
industrial countries, 10

Real effective exchange rates —
developing countries, 11

International banking market
size, 11

International bond issues and
bank credits, 12

Eurocurrency deposit rates, 13

International bond yields, 13

Central bank discount rates, 14

Day-to-day money rates, 14

Treasury bill rates, 15

Representative money market
rates, 15

Commercial bank deposit
rates, 16

Domestic government bond
yields, 16

Commercial bank lending rates
to prime borrowers, 17

Domestic corporate bond
yields, 17

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Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1983	114.2	100.8	107.8	92.0	87.3	107.5	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.5	82.2
1984	122.3	97.3	112.9	94.2	84.4	107.3	86.7	88.1	103.6	88.9	103.9	77.4	110.5	93.9	97.6	84.3
1985	127.0	92.8	115.9	76.3	85.5	107.8	82.1	88.2	104.2	89.6	104.0	75.6	109.5	95.1	95.6	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.2	81.6
1987	94.1	89.6	164.4	58.3	87.1	122.0	82.3	79.0	110.8	95.6	114.6	73.1	123.1	102.8	85.7	80.1
1987																
August	95.7	90.0	162.7	59.8	86.8	121.3	81.5	78.9	110.1	95.2	114.1	73.6	122.6	101.3	87.3	80.2
September	93.9	90.3	165.4	60.5	86.9	121.5	81.8	79.6	110.4	95.3	114.4	74.6	122.7	101.0	87.4	79.7
October	93.4	90.7	165.1	58.9	86.7	121.3	81.7	80.0	115.7	95.1	114.5	75.9	122.3	101.3	87.0	79.6
November	90.0	89.3	171.2	54.3	86.7	123.6	81.2	81.5	110.9	95.6	115.9	75.6	125.4	102.5	85.2	79.2
December	87.4	89.4	178.6	55.1	87.0	123.8	81.4	81.9	110.8	95.8	115.9	75.2	126.9	103.0	83.5	78.9
1988																
January	87.4	91.0	179.8	55.1	87.2	123.4	81.3	81.2	110.7	95.6	115.8	74.8	126.5	103.0	84.6	79.1
February	88.2	92.6	179.3	56.0	86.8	122.9	81.0	80.8	110.7	95.4	115.6	75.0	125.1	102.8	85.4	79.7
March	86.8	93.7	180.7	57.0	86.3	122.8	80.5	83.5	110.7	95.2	115.4	75.5	123.9	102.3	85.1	79.9
April	85.8	94.6	183.2	57.5	85.9	122.6	80.1	85.2	110.6	94.9	115.3	76.2	123.6	101.5	86.1	80.1
May	86.1	94.5	183.7	60.0	86.1	122.1	79.7	85.4	110.4	94.8	115.0	76.0	122.2	101.2	87.1	80.4
June	87.6	96.6	182.0	63.7	86.1	121.5	79.4	83.4	110.1	94.5	114.3	75.6	121.8	101.6	87.1	80.3
July	90.1	98.1	177.4	65.0	85.6	120.7	79.2	83.2	109.7	93.9	113.3	74.8	121.2	100.9	86.3	80.5
June 24	87.8	97.5	181.5	65.2	86.0	121.2	79.3	83.5	109.9	94.2	113.9	75.4	121.9	101.4	87.3	80.3
July 1	89.7	97.4	177.2	64.6	85.9	121.1	79.3	82.4	109.8	94.2	113.7	74.9	122.0	101.4	86.7	80.7
8	89.7	97.9	176.7	64.5	85.9	121.0	79.2	82.7	109.9	94.0	113.8	74.8	121.5	101.1	86.6	80.6
15	90.3	98.1	177.2	64.7	85.6	120.7	79.2	82.4	109.7	94.0	113.4	74.8	121.5	100.8	86.5	80.6
22	90.0	98.7	177.5	65.5	85.4	120.5	79.1	83.5	109.7	93.9	113.2	74.7	121.1	100.7	86.1	80.4
29	90.1	98.0	178.5	65.5	85.3	120.3	79.2	84.3	109.7	93.8	112.9	74.8	120.7	100.7	86.2	80.3
August 5	90.6	98.4	178.2	65.6	85.1	120.1	79.2	84.3	109.6	93.6	112.7	74.9	120.2	100.5	86.2	80.2
Real against 15 other industrial-country currencies																
1983	112.7	102.6	96.8	101.8	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.8	105.1	100.4	102.0	90.8
1984	119.6	100.1	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.0	100.1	99.2	100.5	96.0
1985	121.7	96.3	99.0	88.9	100.4	96.6	100.2	92.8	103.2	85.3	96.5	92.3	97.9	101.2	99.3	96.9
1986	100.9	93.3	122.1	78.3	103.7	103.6	102.5	87.2	106.3	84.5	101.2	93.8	105.4	107.3	96.9	95.9
1987	90.2	96.4	127.9	80.3	105.1	106.7	103.2	87.4	110.0	84.2	104.3	95.7	109.3	111.5	100.3	95.2
1988																
February	85.5	100.2	135.9	79.8	103.9	107.0	104.2	90.5	109.5	82.3	102.3	101.1	109.9	112.5	101.8	96.6
March	84.2	101.7	136.7	81.5	103.6	106.9	103.0	93.7	109.6	81.9	102.7	99.9	109.1	112.4	101.4	97.2
April	83.3	103.0	137.6	82.6	103.2	106.5	102.2	96.0	109.1	81.6	102.8	101.3	108.4	111.5	103.1	97.3
May	83.7	103.0	137.4	86.6	103.5	106.3	102.0	96.3	108.3	80.9	102.5	100.7	106.8	111.8	104.7	97.8
June	85.4	104.7	135.6	92.5	103.6	105.8	101.6	94.1	109.5	80.5	101.9	100.2	106.2	111.9	104.0	97.7
July	88.1	106.3	131.6	94.8	103.1	105.0	101.2	93.7	110.2	79.7	101.4	99.1	105.1	110.6	103.1	97.9
Real against 18 other industrial-country and 22 LDC currencies																
1983	114.9	104.6	100.4	102.0	94.4	100.6	100.8	93.1	102.1	88.2	99.5	89.2	105.1	100.3	101.9	91.0
1984	120.8	102.6	102.4	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.9	91.2	99.8	99.0	100.5	95.8
1985	123.3	99.0	104.2	89.6	99.9	95.6	99.7	92.2	102.8	84.5	94.8	93.0	97.7	101.1	99.7	96.7
1986	106.4	94.3	126.7	80.2	104.2	104.7	103.8	88.0	107.1	85.0	101.1	96.2	107.2	107.8	97.7	96.6
1987	96.3	96.5	131.6	81.9	106.2	109.0	105.7	88.9	111.5	85.4	105.2	99.2	112.2	112.4	101.2	96.5
1988																
February	90.9	99.6	138.7	81.1	104.7	108.9	106.6	91.9	110.9	83.4	103.0	104.5	112.6	113.3	102.8	97.7
March	89.5	100.9	139.3	83.0	104.4	108.7	105.3	95.2	110.9	82.9	103.3	103.2	111.7	113.2	102.4	98.3
April	88.7	102.1	140.1	84.1	103.9	108.2	104.3	97.5	110.3	82.5	103.4	104.5	110.7	112.3	104.1	98.4
May	89.0	102.1	140.0	87.8	104.0	107.8	103.9	97.6	109.3	81.8	102.9	103.7	108.9	112.6	105.7	98.8
June	90.5	104.0	138.6	93.4	103.9	107.0	103.3	95.3	110.4	81.2	102.0	103.0	108.2	112.6	104.8	98.6
July	92.8	105.9	134.8	95.5	103.3	105.8	102.5	94.6	110.9	80.2	101.1	101.5	106.8	111.2	103.9	98.7

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1983	71.6	86.0	89.3	104.9	79.0	98.5	117.3	95.0	96.2	97.6	113.9	96.1	101.8	94.6	120.8	94.2
1984	80.2	85.7	90.1	99.6	91.9	105.8	85.9	99.5	96.0	96.5	119.7	107.9	102.5	97.1	119.5	89.8
1985	71.0	84.8	79.5	85.3	90.4	96.5	92.7	103.3	93.7	88.7	115.7	114.1	95.2	94.3	106.5	88.8
1986	60.8	74.2	68.4	67.4	65.0	96.3	85.4	93.3	70.6	82.0	94.0	89.8	79.8	88.4	100.7	70.6
1987	53.3	73.6	65.1	63.1	66.7	107.7	60.2	89.2	53.9	84.0	87.9	86.5	73.3	93.4	97.2	62.6
1987																
August	54.6	71.2	66.1	63.5	69.6	120.0	64.3	89.5	55.1	86.1	88.5	88.3	74.3	97.4	99.7	63.2
September	53.5	71.1	65.3	62.8	71.5	121.1	64.6	90.2	54.0	85.0	88.4	87.1	73.6	97.4	99.8	61.7
October	53.9	73.3	64.3	62.2	73.6	120.0	65.0	90.0	54.3	85.7	87.1	89.2	73.1	98.1	100.6	60.8
November	49.3	73.9	61.7	60.4	73.6	104.9	64.2	89.1	52.8	85.3	84.9	87.4	72.0	94.9	99.3	58.7
December	49.0	74.7	61.4	60.1	67.3	80.2	63.3	87.2	51.1	84.4	82.8	87.8	70.2	96.0	99.0	62.4
1988																
January	49.4	76.9	59.1	61.6	72.6	76.6	62.9	85.8	51.0	85.4	81.5	87.5	70.1	95.6	100.2	62.9
February	50.9	78.0	60.7	67.2	79.0	85.9	62.9	85.9	51.7	88.0	80.8	87.6	70.8	96.2	101.4	63.4
March	51.7	76.9	59.8	66.8	80.1	104.2	62.7	86.5	50.9	89.1	80.2	87.4	70.3	95.0	102.0	64.4
April	52.3	78.3	59.1	66.3	79.7	121.4	62.2	86.6	50.5	89.3	79.7	86.4	70.3	94.6	102.5	65.1
May	55.1	78.0	60.0	64.9	80.6	131.7	62.4	88.5	50.8	90.4	79.4	87.8	70.3	94.3	104.5	64.7
June	57.0	80.7	60.3	65.2	81.4	145.0	63.2	90.2	51.8	92.5	80.8	90.8	70.6	93.0	105.5	65.0
July	61.1	80.7	62.7	66.3	83.9	153.3	64.2	90.8	53.4	95.4	81.6	94.5	71.5	94.9	109.1	66.1

International banking market size

at end of period, billions of dollars

	1982	1983	1984	1985	1986	1987					
					Dec	Mar	Jun	Sep	Dec		
Gross claims											
Eurocurrencies, on residents and nonresidents	2 146	2 253	2 359	2 833	3 560	3 811	3 942	4 147	4 405		
On nonbanks	634	665	694	822	938	995	1 175	1 215	1 284		
On banks	1 512	1 588	1 665	2 011	2 622	2 817	2 767	2 932	3 121		
In dollars	1 694	1 797	1 894	2 101	2 534	2 602	2 753	2 882	2 891		
In other currencies	452	456	465	732	1 025	1 209	1 189	1 265	1 515		
Domestic currencies, on nonresidents	398	402	402	506	672	721	757	801	915		
On nonbanks	132	140	142	187	209	229	236	230	222		
On banks	266	262	260	319	463	492	521	571	693		
In dollars	211	221	215	215	227	206	215	220	221		
In other currencies	187	181	187	291	445	515	542	581	694		
Total	2 544	2 655	2 761	3 339	4 232	4 532	4 699	4 948	5 320		
On nonbanks	766	805	836	1 009	1 147	1 224	1 411	1 445	1 506		
On banks	1 778	1 850	1 925	2 330	3 085	3 309	3 288	3 503	3 814		
In dollars	1 905	2 018	2 109	2 316	2 761	2 808	2 968	3 102	3 112		
In other currencies	639	637	652	1 023	1 470	1 724	1 731	1 846	2 209		
Gross liabilities											
Eurocurrencies, to residents and nonresidents	2 168	2 278	2 386	2 846	3 579	3 851	3 999	4 205	4 481		
To nonbanks	432	479	497	585	685	740	768	791	808		
To official monetary institutions	91	88	96	112	109	125	139	151	151		
To other banks	1 645	1 711	1 793	2 149	2 786	2 986	3 085	3 263	3 502		
In dollars	1 741	1 846	1 950	2 147	2 553	2 648	2 785	2 936	2 924		
In other currencies	427	432	436	699	1 026	1 203	1 214	1 269	1 537		
Domestic currencies, to nonresidents	250	260	280	377	494	556	580	638	782		
To nonbanks	70	73	80	114	116	134	144	176	191		
To banks	180	187	200	263	377	422	436	462	591		
In dollars	116	135	146	169	192	192	197	212	262		
In other currencies	134	125	134	208	302	364	383	427	520		
Total	2 418	2 538	2 666	3 223	4 073	4 407	4 579	4 843	5 243		
To nonbanks	502	552	577	699	801	874	912	967	999		
To banks and official institutions	1 916	1 986	2 089	2 524	3 272	3 533	3 660	3 876	4 244		
In dollars	1 857	1 981	2 086	2 316	2 745	2 840	2 982	3 148	3 186		
In other currencies	561	557	570	907	1 328	1 567	1 597	1 696	2 057		
Net market size	1 285	1 382	1 430	1 676	1 979	2 083	2 170	2 231	2 377		

International bond issues and bank credits

millions of dollars

	1985	1986	1987	1988			Jan-Jun	
				Apr	May	Jun	1987	1988
By country of borrower								
Industrial countries	225 885	273 653	253 710	20 414	26 378	26 014	122 860	170 533
Australia	14 407	19 251	12 896	1 735	1 568	738	6 003	7 121
Austria	2 435	3 821	4 956	991	180	626	2 279	4 696
Belgium	3 269	5 042	4 537	81	561	474	2 484	2 583
Canada	17 184	23 752	11 356	1 570	1 429	1 941	5 759	9 567
Denmark	3 569	9 913	4 983	691	325	395	3 748	2 692
Finland	1 846	3 578	3 625	190	880	412	2 118	2 993
France	18 773	20 027	15 725	2 284	2 539	2 922	7 847	16 591
Germany	3 452	12 589	10 575	729	290	545	6 674	4 625
Greece	1 587	1 361	1 462	—	119	159	676	628
Ireland	1 881	3 281	2 239	150	43	227	1 069	982
Italy	11 033	12 723	13 551	707	691	466	4 147	4 537
Japan	21 269	35 283	46 523	4 070	2 415	8 214	21 731	24 546
Netherlands	2 299	3 215	5 455	383	645	490	2 946	3 234
New Zealand	2 707	7 818	6 400	402	1 630	—	2 973	2 780
Norway	3 905	6 750	6 051	888	564	634	3 647	4 443
Portugal	2 382	2 503	2 159	362	—	—	1 346	1 051
Spain	3 913	7 083	1 932	250	82	329	896	1 604
Sweden	9 890	8 000	5 799	1 889	985	639	3 679	7 167
Switzerland	864	2 247	1 201	664	250	—	635	915
United Kingdom	25 424	24 109	33 025	4 681	5 915	3 318	17 004	29 751
United States	69 193	55 703	45 867	3 598	4 813	3 095	23 258	29 174
Other*	4 582	5 703	13 350	2 099	454	387	1 940	8 858
Developing countries	32 964	23 884	29 195	1 005	2 155	921	16 611	12 444
Latin American countries	8 115	3 395	10 789	94	130	214	8 163	4 203
Argentina	3 700	17	2 305	—	—	—	—	—
Brazil	—	350	—	—	—	—	—	—
Chile	1 085	—	—	—	—	—	—	—
Colombia	1 052	240	137	—	—	—	50	1 000
Mexico	109	313	7 700	—	—	—	7 700	2 556
Venezuela	48	—	30	34	—	—	—	134
Other**	2 121	2 475	617	60	130	214	413	513
Asian countries	18 410	14 444	13 782	617	950	707	6 421	5 664
China	3 192	3 336	4 678	324	520	97	2 049	1 702
India	818	1 795	2 359	82	120	15	960	1 147
Indonesia	451	1 343	1 770	—	30	—	835	330
Hong Kong	2 516	848	323	28	81	—	386	188
Korea	5 898	3 251	2 938	98	115	50	1 496	767
Malaysia	2 219	1 204	554	60	—	69	250	636
Thailand	1 497	1 676	348	—	21	375	169	696
Other	1 819	990	812	25	63	102	276	197
Middle Eastern and African countries	6 439	6 044	4 624	294	1 075	—	2 026	2 577
Algeria	1 450	1 344	471	—	56	—	241	389
Turkey	1 203	2 754	3 187	294	790	—	1 339	1 733
Other	3 786	1 945	965	—	228	—	446	455
Eastern European countries	5 236	3 941	3 716	150	150	389	1 757	1 079
Hungary	1 577	1 315	1 951	—	—	314	714	632
Soviet Union	1 489	1 821	1 003	50	150	—	662	273
Other***	2 169	805	762	100	—	75	380	175
International organizations****	20 635	19 898	20 814	1 624	1 072	2895	9 424	11 761
By type of instrument and currency								
International bond issues	167 756	228 106	180 788	19 548	19 055	24 001	100 783	119 312
Eurobonds	136 731	188 747	140 535	16 249	15 476	20 964	85 389	95 688
U.S. dollar	97 782	119 096	58 070	4 805	4 858	10 910	31 235	38 439
Japanese yen	6 539	18 516	22 563	3 098	1 961	1 479	17 145	9 537
German mark	9 491	17 127	15 023	1 413	1 873	889	9 479	11 581
British pound	5 766	10 585	15 051	3 184	3 215	2 665	9 278	15 287
Australian dollar	3 118	3 381	8 826	1 111	989	578	6 052	4 168
European composite units	7 038	7 057	7 397	765	927	1 517	5 262	5 138
Canadian dollar	2 822	5 067	6 003	1 196	1 306	1 769	3 337	7 519
Other	4 174	7 918	7 602	679	347	1 157	3 601	4 019
Foreign bonds	31 025	39 359	40 253	3 299	3 579	3 037	15 393	23 623
Swiss franc	14 954	23 213	24 301	2 148	2 118	2 757	10 301	16 086
U.S. dollar	4 655	6 782	7 416	356	550	—	1 750	2 585
Japanese yen	6 379	5 223	4 071	484	481	143	1 726	2 625
Other	5 037	4 141	4 465	311	429	137	1 616	2 327
International bank credits	116 964	93 269	126 655	11 645	10 701	6 219	49 869	76 505
Eurocurrency credits	110 317	84 208	115 312	10 455	10 543	5 421	45 749	73 201
Foreign credits	6 647	9 061	11 343	1 190	158	798	4 120	3 304
Total	284 720	321 375	307 443	31 193	29 756	30 219	150 651	195 817

*Includes multinational organizations.

**Includes unallocated.

***Includes COMECON institutions.

****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1985	1986	1987	1988						
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Eurodollar										
overnight	12.25	22.00	-6.75	6.69	6.69	6.75	6.88	7.31	7.44	7.58
one month	8.00	8.50	7.06	6.69	6.69	6.69	7.00	7.44	7.69	8.00
three months	7.88	6.25	7.37	6.81	6.69	6.81	7.19	7.63	7.81	8.31
six months	7.88	6.12	7.50	6.87	6.75	7.06	7.44	7.81	7.94	8.50
twelve months	7.94	6.12	7.81	7.25	7.12	7.44	7.88	8.31	8.25	8.75
Euro-Canadian dollar										
one month	9.00	8.00	8.00	8.50	8.25	8.25	8.44	8.81	8.69	9.00
three months	9.00	8.12	8.12	8.37	8.37	8.37	8.75	8.94	9.06	9.38
six months	9.00	8.19	8.44	8.50	8.37	8.62	8.88	9.19	9.31	9.63
twelve months	9.00	8.31	8.87	8.75	8.75	9.00	9.25	9.53	9.63	10.00
Euro-French franc										
one month	12.50	10.12	8.75	7.50	7.25	7.81	8.00	7.31	7.25	7.13
three months	13.00	10.37	9.00	8.00	7.75	8.31	8.25	7.50	7.38	7.38
six months	13.13	9.75	9.25	8.25	8.19	8.44	8.38	7.63	7.63	7.75
twelve months	12.25	8.75	9.25	8.50	8.50	8.56	8.50	8.00	7.88	8.06
Euromark										
one month	4.75	5.12	3.25	3.19	3.31	3.25	3.31	3.31	4.25	5.00
three months	4.75	4.87	3.37	3.25	3.31	3.31	3.44	3.56	4.38	5.06
six months	4.75	4.81	3.50	3.31	3.37	3.37	3.63	3.81	4.50	5.31
twelve months	4.81	4.81	3.75	3.56	3.50	3.56	3.81	4.19	4.69	5.50
Euro-Dutch guilder										
one month	5.75	6.31	4.50	3.94	3.94	3.87	3.88	3.81	3.94	5.00
three months	5.75	6.00	4.62	4.00	4.00	3.87	3.94	3.94	4.31	5.25
six months	5.81	5.87	4.69	4.12	4.06	4.06	4.06	4.13	4.56	5.44
twelve months	5.88	5.81	4.81	4.37	4.12	4.19	4.19	4.44	4.81	5.50
Euro-Swiss franc										
one month	3.88	3.94	2.50	1.25	1.37	1.62	2.06	2.81	3.38	3.44
three months	4.00	3.94	3.00	1.81	1.69	1.87	2.25	2.88	3.44	3.88
six months	4.00	3.87	3.19	2.37	2.12	2.19	2.44	2.94	3.56	4.13
twelve months	4.06	3.87	3.25	2.87	2.69	2.62	2.75	3.13	3.63	4.25
Eurosterling										
one month	11.69	11.12	8.56	8.44	9.00	8.44	8.06	7.38	9.38	10.38
three months	11.81	11.12	8.81	8.69	9.31	8.56	9.31	7.75	9.94	10.81
six months	11.81	11.06	9.00	8.87	9.50	8.69	8.69	8.25	10.06	10.88
twelve months	11.69	11.06	9.31	9.25	9.75	9.00	9.06	8.81	10.25	11.00
Euroyen										
one month	7.13	4.56	4.00	4.06	4.37	4.00	3.81	4.06	4.13	4.38
three months	6.56	4.50	4.12	4.12	4.19	4.00	3.94	4.06	4.38	4.63
six months	6.50	4.37	4.12	4.12	4.19	4.12	4.13	4.25	4.56	4.75
twelve months	6.38	4.31	4.12	4.19	4.19	4.19	4.25	4.31	4.69	4.75
European currency unit										
one month	9.63	8.56	6.62	5.87	6.12	6.19	6.13	5.63	5.06	6.94
three months	9.63	8.44	6.75	6.19	6.31	6.37	6.38	6.00	6.44	7.25
six months	9.63	8.06	6.87	6.37	6.44	6.44	6.50	6.31	6.69	7.56
twelve months	9.63	7.31	7.00	6.62	6.62	6.62	6.69	6.56	6.94	7.69

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1985	1986	1987	1988						
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
Eurodollar	9.68	8.67	9.99	10.95	10.41	10.21	10.31	10.24	9.79	9.78
Euromark	6.73	6.62	6.82	6.87	7.04	6.74	6.69	6.54	6.27	6.33
Swiss franc	5.49	5.70	5.43	5.50	5.83	5.56	5.71	5.57	5.66	5.61
European governments										
Eurodollar	10.52	9.91	11.41	11.81	11.63	11.63	11.64	11.48	11.38	11.50
Euromark	7.03	6.77	6.85	6.76	6.61	6.61	6.21	6.23	6.07	6.06
Swiss franc	4.91	4.51	4.38	4.39	4.54	4.15	4.11	4.05	3.71	3.88
European currency unit	10.23	10.20	10.43	10.46	11.10	11.06	10.84	10.85	10.58	10.35

Central bank discount rates

at or near end of month

	1985	1986	1987	1988					Current	
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug 15 1988	effective since
United States	7.50	8.50	6.00	6.00	6.00	6.00	6.00	6.00	6.50	Aug 9, 88
Canada	9.49	8.47	8.66	8.78	9.12	9.17	9.44	9.54	9.74	Aug 11, 88
Austria	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	Dec 3, 87
Belgium	9.75	8.00	7.00	6.50	6.50	6.50	6.75	7.00	7.25	Aug 11, 88
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.00	7.00	7.00	7.00	7.00	8.00	8.00	8.00	8.00	May 16, 88
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	3.50	2.50	2.50	2.50	2.50	3.00	3.00	3.00	Jun 30, 88
Ireland	10.25	13.25	9.25	9.25	8.50	8.00	8.00	8.00	8.00	May 30, 88
Italy	15.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	Aug 28, 87
Netherlands	5.00	4.50	3.75	3.25	3.25	3.25	3.50	3.75	3.75	Jul 28, 88
Portugal	19.00	16.00	14.50	14.00	14.00	13.50	n.a.	n.a.	13.50	May, 88
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	10.50	7.50	7.50	7.50	8.50	8.50	8.50	8.50	8.50	Apr 29, 88
Switzerland	4.00	4.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Dec 4, 87
United Kingdom	11.31	10.81	8.37	8.37	7.88	7.38	9.38	10.38	10.88	Aug 8, 88
Japan	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	19.80	24.60	18.55	17.80	19.70	17.15	16.95	16.90	15.70	Aug 15, 88
South Africa	13.50	10.00	9.80	10.80	10.80	11.80	11.80	12.80	12.80	Jul 29, 88
Argentina*	5.00	11.19	7.59	18.38	19.10	21.58	23.04	27.80	27.80	Jul, 88
Korea	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 88
Philippines	11.50	9.64	9.25	9.11	9.09	9.10	n.a.	n.a.	n.a.	
Singapore	5.00	5.00	5.00	3.50	3.50	3.50	3.50	3.50	3.50	Feb, 88
Thailand	11.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 88
Venezuela	12.94	12.79	12.49	12.98	12.92	n.a.	n.a.	n.a.	12.92	Apr, 88

*Percent per month.

Day-to-day money rates

monthly averages

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.38	8.27	6.91	6.77	6.83	6.58	6.58	6.87	7.09	7.51	7.75
Canada	10.50	9.23	8.28	8.40	8.44	8.41	8.45	8.28	8.69	8.90	9.25
Austria	7.63	7.25	7.62	4.10	4.50	3.50	3.50	3.65	3.60	4.05	5.75
Belgium	9.12	6.60	5.09	5.09	5.02	4.16	5.10	5.05	4.28	4.62	4.85
Finland	n.a.	n.a.	11.87	8.01	8.09	8.20	8.62	8.26	8.13	n.a.	n.a.
France	10.95	9.02	7.80	8.23	7.80	7.26	7.54	7.55	7.34	7.11	7.19
Germany	5.62	4.64	5.00	3.19	3.13	3.32	3.24	3.25	3.30	3.74	4.43
Ireland	14.50	9.62	13.00	7.50	8.00	8.50	8.25	8.00	7.38	n.a.	7.38
Italy	17.25	14.75	11.42	10.25	10.60	9.87	10.14	9.95	11.41	11.27	11.00
Netherlands	5.60	5.75	6.19	4.25	4.12	3.87	3.94	4.00	3.94	3.69	4.55
Norway	12.50	12.50	14.00	14.02	13.88	13.87	13.91	14.03	13.51	n.a.	n.a.
Spain	12.18	9.92	11.76	14.02	13.20	12.13	11.40	11.01	10.81	10.47	n.a.
Sweden	11.88	11.83	8.89	8.43	8.75	9.37	9.61	9.71	10.58	10.55	10.50
Switzerland	1.50	2.00	1.12	0.50	0.50	1.00	1.25	2.13	2.25	2.50	3.38
United Kingdom	6.31	9.72	9.19	7.60	8.26	8.28	8.55	8.13	7.51	9.25	8.99
Australia	10.98	18.37	15.40	10.37	10.23	10.25	10.33	10.36	11.20	11.79	n.a.
Japan	6.41	8.02	4.18	3.81	3.54	3.39	3.53	3.34	3.24	3.48	3.65
South Africa	21.13	12.50	8.50	9.76	9.75	9.25	9.85	10.00	10.90	11.34	n.s.
Argentina*	17.75	4.50	7.00	14.90	16.40	14.90	17.60	18.18	19.70	22.60	26.10
Brazil	272.02	352.23	83.05	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.c.
Hong Kong	6.80	6.10	3.90	0.56	0.58	1.83	2.84	3.64	6.02	7.21	7.09
Korea	10.00	8.80	9.00	9.20	9.30	9.20	9.40	n.a.	n.a.	n.a.	n.a.
Philippines	15.22	15.03	9.92	22.53	14.94	9.41	13.88	15.68	13.66	n.a.	n.a.
Singapore	6.01	4.53	3.51	2.57	2.73	2.93	3.01	3.08	3.56	n.a.	3.97
Taiwan	8.07	4.50	4.00	4.58	5.11	5.52	5.37	5.23	4.37	5.65	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.12	7.28	5.83	5.84	5.80	5.78	5.87	6.15	6.67	6.56	6.95
Canada	9.84	9.24	8.24	8.41	8.37	8.32	8.53	8.87	8.92	9.19	9.29
Belgium	10.90	9.89	7.50	8.84	6.44	6.24	6.18	6.18	6.18	6.18	7.20
Ireland	15.10	11.15	13.60	8.69	8.34	8.76	8.33	7.83	7.17	7.47	7.61
Italy	14.69	13.10	10.00	11.66	11.37	10.78	10.78	10.81	10.82	10.63	n.a.
Netherlands	5.88	5.69	6.37	4.95	4.75	4.25	4.12	4.38	4.25	4.13	5.38
Spain	12.27	9.52	8.37	6.67	5.56	5.83	10.17	n.a.	10.25	n.a.	n.a.
Sweden	11.83	12.49	9.20	9.05	9.20	9.32	9.58	10.70	10.29	10.37	10.50
United Kingdom	9.33	11.49	10.79	8.38	8.38	9.01	8.26	7.98	7.28	9.24	10.53
Australia	12.27	19.40	14.91	10.06	9.92	10.44	9.83	10.40	11.60	11.31	12.10
Japan	4.91	4.91	2.89	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	13.50	17.52	19.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	21.94	12.99	8.84	8.85	9.49	9.55	10.51	10.97	11.61	11.91	12.06
Brazil	273.03	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	48.67	72.98	104.03	133.04	155.67	153.86	75.16	54.51	44.81	33.30	32.45
Philippines	47.14	16.45	9.55	13.35	13.52	11.57	13.88	14.94	15.10	14.36	14.50
Singapore	2.91	2.94	2.10	3.23	2.92	2.97	2.97	3.02	3.36	n.a.	3.87

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.49	8.02	6.64	7.21	6.90	6.77	6.90	7.20	7.75	7.87	8.29
Canada	10.00	9.40	8.35	8.90	8.65	8.55	8.65	8.94	9.32	9.30	9.55
Belgium	10.85	9.89	7.60	6.97	6.65	6.37	6.26	6.24	6.24	6.24	7.35
France	10.69	9.12	8.37	8.56	8.06	7.44	8.25	7.88	7.31	7.31	7.44
Germany	5.75	4.80	4.85	3.65	3.23	3.28	3.40	3.55	3.60	4.40	5.20
Ireland	15.13	12.00	14.06	8.81	8.62	8.94	8.38	8.13	7.38	7.87	7.87
Italy	16.88	15.13	11.37	11.50	10.75	11.13	11.13	10.38	11.00	n.a.	11.25
Netherlands	5.75	5.75	6.19	4.56	4.32	4.06	4.06	4.13	4.19	4.56	5.31
Portugal	24.57	20.71	16.07	14.34	13.97	13.43	13.03	n.a.	n.a.	n.a.	n.a.
Spain	12.21	10.51	11.79	13.59	12.30	12.01	11.06	10.90	11.11	10.44	n.a.
Switzerland	5.00	4.75	4.50	3.56	1.69	1.81	1.88	2.13	2.75	3.31	4.00
United Kingdom	9.88	12.75	11.25	8.94	8.31	9.38	9.56	8.31	7.81	9.88	10.94
Australia	12.90	19.75	15.10	11.25	10.85	10.90	11.50	11.55	12.87	13.20	13.15
Japan	6.33	7.03	4.34	3.90	3.85	3.80	3.80	3.75	3.80	3.84	3.97
New Zealand	15.00	20.00	24.25	17.70	17.00	17.35	n.a.	17.20	15.75	15.70	15.20
South Africa	22.78	13.35	8.55	8.90	9.60	10.25	10.90	11.85	12.65	12.10	12.65
Chile	20.68	22.42	19.56	15.25	11.35	10.69	21.41	20.84	11.09	9.90	n.a.
Hong Kong	8.25	6.50	4.62	1.50	3.00	3.87	4.12	5.13	7.31	8.00	8.50
Indonesia	19.00	15.00	19.50	17.50	17.00	18.50	22.50	18.50	19.00	18.75	19.25
Korea	8.00	8.00	8.00	7.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Malaysia	10.30	8.20	6.00	n.a.	n.a.	n.a.	n.a.	3.70	3.85	3.85	3.55
Philippines	33.21	14.61	8.31	10.55	12.12	10.21	11.30	12.75	12.75	13.00	13.50
Singapore	7.00	5.88	3.94	3.25	3.13	3.13	3.19	n.a.	n.a.	n.a.	n.a.
Taiwan	7.85	4.10	3.87	3.09	4.12	4.47	4.23	4.48	4.30	5.29	n.a.

Commercial bank deposit rates

at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	8.34	7.72	6.26	7.10	6.67	6.57	6.69	7.05	7.54	7.65	8.11
Canada	10.05	9.40	8.15	8.40	8.50	8.45	8.60	8.91	8.99	9.25	9.36
Austria	7.50	6.50	5.50	4.25	4.40	4.05	3.90	3.90	3.95	4.35	5.60
Belgium	10.63	9.63	7.44	6.69	6.31	6.25	6.19	6.00	6.06	6.25	7.13
Denmark	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.	n.a.
Finland	14.55	10.75	13.36	10.12	9.10	9.54	9.62	9.41	9.35	9.15	n.a.
France	7.34	6.24	4.50	4.50	4.50	4.50	4.50	7.69	7.31	7.19	7.25
Germany	5.25	4.40	4.80	3.50	3.20	3.20	3.25	3.40	3.40	3.30	4.90
Ireland	14.63	11.87	13.75	8.62	8.50	8.75	8.25	7.75	7.25	7.56	7.75
Italy	11.64	13.21	10.69	n.a.	n.a.	n.a.	n.a.	9.50	9.50	9.50	9.30
Netherlands	5.69	5.81	6.06	4.50	4.21	3.94	4.00	4.06	4.06	4.44	5.31
Norway	12.75	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	28.00	20.00	15.00	14.00	14.00	13.50	13.50	13.50	n.a.	n.a.	n.a.
Spain	11.64	9.64	6.67	9.48	9.39	9.30	9.17	9.05	9.03	n.a.	n.a.
Sweden	11.45	12.18	9.93	9.45	9.55	9.55	9.95	10.95	10.60	10.45	10.65
Switzerland	4.50	4.50	4.25	3.37	1.44	1.56	1.63	1.88	2.50	3.06	3.38
United Kingdom	9.88	11.75	11.19	8.81	8.75	9.25	8.37	8.13	7.83	9.75	10.75
Australia	12.75	18.80	15.56	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	6.38	7.04	4.55	4.42	4.33	4.41	4.38	4.25	4.30	4.37	4.75
New Zealand	15.25	19.98	23.50	16.85	16.00	n.a.	14.60	15.50	15.50	15.30	15.00
South Africa	22.88	13.20	8.65	10.25	11.20	11.90	11.90	12.70	14.00	13.00	n.a.
Argentina*	31.28	5.40	8.41	14.00	15.12	14.30	17.10	18.10	18.70	21.50	24.30
Brazil	27.00	18.00	220.00	17.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	20.68	23.60	20.98	14.84	11.75	9.25	19.84	17.73	9.77	6.42	n.a.
Hong Kong	8.25	6.50	4.52	1.50	3.00	3.87	4.12	5.13	7.31	8.00	8.50
Korea	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	9.58	7.00	6.33	n.a.	n.a.	n.a.	n.a.	3.50	3.85	3.85	3.60
Mexico	47.45	72.90	94.30	120.35	118.99	118.80	75.97	53.01	45.27	33.04	29.90
Philippines	31.01	12.34	7.75	11.19	9.65	9.27	10.09	12.00	11.68	12.95	n.a.
Singapore	6.13	5.26	4.00	3.13	3.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taiwan	6.50	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	n.a.
Venezuela	12.50	8.00	8.00	8.95	8.97	8.94	8.85	8.96	n.a.	n.a.	n.a.

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	11.61	9.49	7.79	8.95	8.42	8.39	8.82	9.07	9.31	8.88	9.23
Canada	11.66	10.04	9.23	10.34	9.74	9.61	10.13	10.36	10.38	10.13	10.42
Austria	8.03	7.61	7.33	6.89	6.83	6.80	6.71	6.62	6.61	6.62	6.61
Belgium	11.56	9.60	7.70	8.04	7.58	7.38	7.85	7.62	7.89	7.88	8.05
Denmark	14.60	9.67	11.70	12.05	11.18	10.91	11.22	11.44	10.71	n.a.	n.a.
Finland	11.31	11.07	10.26	7.67	7.40	7.40	7.41	7.43	7.15	7.19	7.18
France	12.70	11.33	9.89	10.57	9.73	9.33	9.61	9.42	9.38	9.07	n.a.
Germany	7.17	6.57	6.25	6.51	6.50	6.28	6.30	6.53	6.66	6.67	6.86
Ireland	14.90	11.84	12.97	10.45	10.61	10.41	10.12	9.74	9.80	9.60	9.68
Italy	14.52	13.66	10.05	10.50	10.29	10.30	10.29	10.39	10.49	10.47	n.a.
Netherlands	7.72	6.96	6.40	6.32	6.17	5.99	6.01	6.21	6.36	6.46	6.59
Norway	12.00	13.00	13.24	13.29	13.35	13.16	13.24	13.23	12.84	n.a.	n.a.
Portugal	22.23	16.64	14.49	14.80	14.70	14.50	14.10	n.a.	n.a.	n.a.	n.a.
Spain	13.93	12.52	10.36	13.14	12.48	11.91	11.82	11.35	11.63	11.27	n.a.
Sweden	12.04	12.11	10.66	11.39	11.30	10.96	11.05	11.41	11.21	11.06	11.26
Switzerland	4.60	4.42	4.05	3.95	3.94	3.93	3.92	3.77	3.98	4.15	4.29
United Kingdom	10.25	10.35	10.17	9.47	9.26	9.10	8.96	9.14	9.17	9.43	9.36
Australia	13.50	14.85	13.40	12.85	12.40	12.30	11.90	11.50	12.30	11.95	11.97
Japan	6.47	5.92	4.61	4.88	4.23	4.36	4.43	4.45	4.60	4.86	4.90
New Zealand	16.90	17.00	16.00	14.30	14.00	13.30	12.90	13.31	12.94	12.70	12.90
South Africa	16.55	18.09	15.06	15.70	16.80	16.52	16.60	16.48	16.40	16.06	16.17
Philippines	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Venezuela	14.00	12.00	12.00	12.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	10.75	9.50	7.50	8.75	8.50	8.50	8.50	8.50	9.00	9.00	9.50
Canada	11.25	10.00	9.75	9.75	9.75	9.75	9.75	10.25	10.25	10.75	10.75
Austria	9.25	9.00	9.00	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25
Belgium	14.00	11.50	9.75	8.75	8.75	8.50	8.50	8.50	8.50	8.50	9.00
Denmark	10.50	8.50	8.00	9.50	9.50	9.50	9.50	9.50	9.50	n.a.	n.a.
Finland	10.68	10.37	8.81	8.99	9.03	9.05	9.07	9.12	9.89	9.89	n.a.
France	12.00	10.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.25
Germany	7.75	7.25	6.75	6.25	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Ireland	15.75	12.50	15.75	11.50	11.50	11.50	11.50	11.25	11.25	n.a.	10.75
Italy	18.00	15.88	13.00	13.00	12.50	12.62	12.62	12.63	12.63	12.50	12.50
Netherlands	6.25	6.25	7.12	4.87	4.62	4.25	4.12	4.38	4.25	4.25	5.25
Norway	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	29.00	22.50	17.50	18.50	18.50	18.00	18.00	18.00	n.a.	n.a.	n.a.
Spain	15.84	14.75	14.22	16.34	16.10	15.76	15.42	15.23	14.79	14.33	n.a.
Sweden	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	12.00	12.00	12.00
Switzerland	8.00	6.00	5.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	9.50	11.50	11.00	8.50	8.50	9.00	8.50	8.00	7.50	9.50	10.50
Australia	14.00	21.00	18.50	14.00	13.50	13.50	13.50	13.75	14.50	15.00	n.a.
Japan	5.50	5.50	3.75	3.37	3.37	3.37	3.37	3.38	3.38	3.38	3.38
New Zealand	14.00	21.00	23.00	18.75	18.75	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	24.00	16.50	12.00	12.50	13.00	13.00	14.00	14.00	15.00	15.00	16.00
Argentina*	32.05	7.30	11.30	14.80	15.80	15.00	17.60	17.92	19.50	22.70	25.60
Brazil**	31.00	19.00	250.00	19.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	60.82	33.34	29.13	30.99	21.22	20.51	25.49	31.64	21.88	18.51	n.a.
Hong Kong	11.00	7.00	6.50	5.50	5.25	6.00	6.00	6.50	7.50	8.50	9.00
Indonesia	23.50	18.75	19.75	20.50	20.50	20.50	20.50	21.00	22.00	22.00	22.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	12.00	10.50	10.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	47.54	65.66	95.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	44.00	15.00	10.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	9.40	7.20	6.10	6.10	5.98	5.93	5.85	5.85	5.85	5.85	5.85
Taiwan	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Venezuela	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	n.a.	n.a.	n.a.

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987	1988						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	12.25	10.15	8.88	9.90	9.38	9.45	9.85	10.25	10.38	10.13	10.20
Canada	12.42	10.74	10.18	10.95	10.37	9.96	n.a.	10.97	10.86	n.a.	n.a.
France	12.94	11.76	10.18	10.92	10.38	9.91	10.03	9.78	9.77	9.60	n.a.
Germany	7.20	6.90	6.50	6.70	6.70	6.70	6.60	6.60	6.80	6.80	n.a.
Netherlands	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Spain	18.32	14.92	13.40	16.15	15.79	14.68	14.78	14.22	14.03	13.91	n.a.
Sweden	12.33	13.25	11.99	12.31	12.20	11.83	11.94	12.20	12.15	11.45	11.70
Switzerland	5.09	4.93	4.72	4.60	4.50	4.39	4.39	4.29	4.36	4.46	4.44
United Kingdom	11.64	11.47	11.71	11.11	10.76	10.82	10.66	10.55	10.69	10.79	10.86
Japan	7.10	6.79	5.93	5.32	5.06	5.03	4.99	4.93	4.95	4.97	n.a.
Korea	15.00	13.60	12.80	12.80	12.80	13.20	13.70	13.90	14.90	15.10	n.a.
Venezuela	18.00	17.00	17.00	18.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Key to data in tables

I. International markets

Data on the *international banking market size* are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countries, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An *international bond issue* may be either a Eurobond issue or a foreign bond issue. A *Eurobond issue* is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A *foreign bond issue* is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An *international bank credit* may be either a Eurocurrency credit or a foreign credit. A *Eurocurrency credit* is one denominated in a currency that is foreign to the country of the bank office extending the credit. A *foreign credit* is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances).

Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly*.

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina — 7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada — chartered banks' day-to-day loans.

Finland — interbank overnight call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan — Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 3-month Treasury bill repos reported by the Bank of Spain until January 1988. As of February 1988 secondary market yield on 3-month Treasury notes (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances until July 1987. As of August 1987 3-month commercial bills.

South Africa — 90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — 3-month certificate of deposit.

France — 3-month time deposits of FF. 1,000,000 until February 1988. As of March 1988, 3-month certificates of deposit.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK\$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.
South Africa — 3-month negotiable certificates of deposit.

Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.

Sweden — 3-month certificates of deposit.
Switzerland — 3-month time deposits.

Taiwan — maximum rate for 3-month time deposits.

Thailand — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — secondary market yield for 10-year Treasury bonds.

Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds.

France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.

Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.

Japan — secondary market average yield on Central government bonds with a maturity of 5 years or more.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.

New Zealand — average yield on government bonds maturing after 5 years.

Norway — 5% government bond of 1996 until December 1982. New series as of January 1983, average yield of long-term government bonds.

Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of indebtedness.

Portugal — yield of 4% Centenary Loan of 1940.

South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.

Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).

Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index until December 1986. As of January 1987 U.S. Treasury 30-year constant maturity index.

Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.

Austria — overdraft rate for prime borrowers, including commission.

Australia — overdraft rate. Maximum indicator rate applying to loans of A\$100,000 or more for major trading banks.

Belgium — prime overdraft rate.

Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.

Canada — prime rate.

Chile — average prime rate of six major commercial banks.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime lending rate set by the Hong Kong Association of Banks.

Indonesia — prime rate for domestic affiliates of foreign companies.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — standard rate of interest on short-term loans of especially high credit standing.

Korea — prime rate.

Malaysia — Bank of Commerce Berhad base lending rate.

Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class, large borrowers.

Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.

Portugal — maximum rate for 90- to 180-day loans.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.

Sweden — overdraft rate for prime industrial borrowers, commission not included.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.

Thailand — prime rate.

United Kingdom — clearing bank base lending rate. A spread above base rate is often added.

United States — prime rate of Morgan Guaranty Trust Company.

Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.

France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.

Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.

Japan — secondary market yield for industrial bonds.

Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- to 5-years.

Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.

Spain — Bank of Spain secondary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).

Sweden — Central Statistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.

United Kingdom — Financial Times secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.

United States — Salomon Brothers index of new issues yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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Financial markets in Europe: toward 1992, 1

- The integration process, 2
- Financial market integration, 4
- Implications for governments, 6
- Implications for financial firms, 9
- Implications for London, 12
- Potential setbacks, 13
- Statistical appendix, 15

Table 1

Economic growth and inflation
average annual percent change,
1985-87

	Real GDP	GDP deflator
Belgium	1.8	3.7
Denmark	2.2	5.1
France	2.0	4.3
Germany	2.2	2.5
Ireland	1.9	4.4
Italy	2.8	7.5
Luxembourg	2.9	2.2
Netherlands	2.3	0.5
United Kingdom*	3.4	4.6
Greece*	1.2	17.5
Portugal*	4.1	17.2
Spain*	3.6	8.4
EC 12 average	2.6	5.2

*Nonparticipants in the ERM.

Financial markets in Europe: toward 1992

Europe is abuzz with talk of 1992. After that year, if all goes to plan, 330 million people will be free to reside and do business anywhere in the twelve countries of the European Community (EC). Forward-looking European companies are assessing how green the grass may be on the other side of existing national "fences" — and making plans to protect home turfs from encroachers. The EC political agenda, long topped by farm subsidies, now sports proposals to create a European central bank and wrest concessions from outsiders — Japan, in particular — in return for access to a unified European market.

To some, Europe can withstand competition from U.S. and Japanese companies only with a unified industrial base that reaps economies of scale in research, production, and distribution. Others cheer Project 1992's reliance on market forces and its expansion of individual freedoms to participate in business and the professions Communitywide. An end to regulatory and tax barriers to mobility and trade should cut costs to consumers,

open up job opportunities, and allow faster economic growth. This would revitalize industry and help overcome "Euroclerosis."

Yet others see Project 1992 as bringing the EC close to the ideals of the 1957 Treaty of Rome: harmonious economic and social development with close political relations among states. These ideals got short shrift so long as attention focused on adding new members, piecemeal regulatory harmonization, and income support for farmers, declining industries, and less developed regions. Today, boosters of the EC are pleased with the policy discipline achieved through the European Monetary System (EMS), which has induced convergence of economic performance in all full participants (see Table 1).

Enthusiasts believe that the EC is ready for a next, major step. Yet the task is Herculean. First, Project 1992 involves wholesale pruning of national regulations catering to parochial customs and vested interests. Second, it would limit the role of the state, contrary to tradition in much of Europe. Third, the

Project requires reform of tax regimes and government spending, which are more distorting of trade, mobility, and allocation decisions than in the United States or Japan.

A year or two ago most observers of the European scene were skeptical of Project 1992. After all, other visionary proposals from the Commission of the European Communities — the EC's executive body — have gone nowhere. This year, however, the idea of a unified, competitive market has fired the imagination of business leaders and gained popularity in many circles. Governments now have adopted a number of key proposals in the face of nationalist and special-interest concerns. No longer is Project 1992 doomed to fade as yet another idea whose time has not come. Instead, enough barriers stand to tumble to make a dramatic difference to the European landscape of the mid- to late-1990s.

Following a brief review of Europe's general approach to integration, this article focuses on a single aspect of Project 1992 — Europe's financial markets. Much remains to be done: Communitywide consensus must be reached on legislation now pending or in draft; countries then must respect timetables and implement the measures in spirit as well as letter; and financial players must adapt to the new rules and the more competitive environment ahead.

Financial integration involves major risks. Obstacles to capital flows and financial service provision could come down before tax and regulatory differences are adequately addressed, driving investment capital toward countries with the lowest tax and regulatory burdens. This, in turn,

could trigger regulatory backlash and new capital controls on the part of countries affected adversely. Another risk is that EMS participants will disagree on policy objectives, notably for economic growth and inflation. Exchange and interest rate instability might ensue, tempting destructive ventures in monetary "independence." The credibility of Project 1992 could be strained and, in the extreme, the unification of Europe's financial markets be postponed indefinitely.

The integration process

Europe's initiative to break down all remaining barriers to economic integration is the most ambitious undertaking since the establishment of the EC in 1957. In June 1985 the heads of EC governments approved a Commission White Paper detailing some 300 measures needed to unify the European market. Six months later the Treaty of Rome was amended to reiterate this objective and facilitate its achievement. By the first half of 1987 the amendment, known as the Single European Act, had been passed by the national parliaments. It calls for the creation, by December 31, 1992, of "an area without frontiers in which the free movement of goods, persons, services and capital is ensured." This objective resembles that of the original Treaty of Rome, which had mandated "the abolition of obstacles to the free movement of persons, services, and capital" by December 31, 1969.*

Nevertheless, on most issues the Act made two significant innovations in EC legislation and practice: qualified majority rule and mutual recognition. Whereas

*In the early 1960s, capital transactions linked to the exercise of basic freedoms established by the treaty (such as commercial credits, direct investments, and personal capital movements) were liberalized. However, treaty signatories had pledged to liberalize financial services and capital flow restrictions only "to the extent necessary for the proper functioning of the common market." They were entitled to reimpose controls, subject to authorization, if capital movements disturbed their own financial markets. During the stormy 1970s and early 1980s, ground was lost because the EC allowed several countries to make extensive use of safeguards, while failing to persuade them to make progress on financial integration. Still, Britain scrapped exchange controls in 1979. More recently, several countries — notably France, Greece, Ireland, and Spain — have unilaterally cut back interest rate controls; and Britain and Portugal have removed other barriers to competition in financial markets. In 1984 the EC membership agreed to tighten recourse to safeguard clauses and all exceptional arrangements subsequently were terminated.

most Commission proposals formerly had to be approved by a unanimous vote of the European Council, the amended treaty allows this gathering of ministers from the twelve countries to pass much legislation by a qualified majority (defined as 54 of 76 weighted votes). Now it takes more than two of the larger countries (with ten votes each), or more than four of the smaller (three-to-five votes each), to block Commission directives — quite a change from before, when any country, however small, could veto proposals of any importance.

Mutual recognition bypasses the tedious approach of trying to conform national regulations and procedures to common, EC-wide standards. The Council now is free to rule that the norms in force in one country are equivalent to those applied in another; no longer need integration stand hostage to endless discussions of how to harmonize, say, product labeling or emission control standards.

The 1985 White Paper also offered a convenient guide to the most blatant obstacles to intra-Community trade in goods and services. These include border controls, discriminatory government procurement practices, subsidies to industries and farmers, technical standards and regulations, unfair business practices, and state-owned or government-sanctioned monopolies and oligopolies.

In principle, an end to these obstacles, by opening up economies of scale and weeding out inefficiency and monopoly profits, would put downward pressure on costs and prices, boost output, and reduce unemployment. How large the benefits would be in practice is much less

clear. They surely would depend on rest-of-world developments and the macroeconomic policy stance. Assuming unchanged policies, the European Commission has published rough estimates that full implementation of Project 1992 could lower average EC consumer prices by 6% after six years, raise real GDP by 4.5%, and create almost 2 million jobs — relative to levels otherwise prevailing. With more expansionary fiscal and monetary policies, job creation might reach five million and the GNP gain some 7%. But inflation would run higher too, albeit distinctly less than without Project 1992.

Three years have passed since the White Paper's program was endorsed officially. The tally of approved legislation is up to about one-third of the eventual total. This is more than many had expected. Still, from the 1985 launch date the calendar now is nearly halfway to December 1992. Moreover, many important directives are among the two-thirds not yet approved or submitted.*

*Directives already passed would, *inter alia*, simplify border formalities, ease trade in live animals, align laws on auto and truck emissions and dangerous chemicals, facilitate the use of mobile telephones, and grant mutual recognition of prospectuses. In addition, at their June summit, the EC ministers agreed on a schedule to abolish capital controls, eliminate licensing and quota restrictions on trucking, recognize all university diplomas, and fix common rules for food additives and packaging.

Sensitive issues yet to be settled include border controls on individual travelers, largely motivated by differing policies toward terrorism and immigration and by attempts to enforce national gun and drug laws. Initiatives likewise are awaited to curb protectionist government procurement policies; these create major production and trade distortions since the affected outlays run as much as 10% of European GDP. Commission directives approved over a decade ago to open up procurement mostly have been ignored, despite exempting four major sectors (telecommunications, energy, transport, and water supply). In deference to nationalist and strategic considerations.

Among the plethora of topics for decision, tax harmonization promises to be particularly thorny. This comes as no surprise, following an already long history of vain Commission endeavors to bring value added (VAT) and excise taxes into line. Besides, fiscal issues are among the very few that still require resolution by unanimity under the Single European Act, reflecting the profound disagreements extant at the time the Act was drafted. Those disagreements remain: countries that tax alcohol heavily or exempt "necessities" from VAT, for instance, do so out of deeply held beliefs.

Time is short to clear away the outstanding issues of Project 1992. Though Council directives carry the force of law, most grant member countries several years to bring national legislation in line and implement necessary administrative changes. Governments have been known to drag their feet, and the Commission or private parties often have taken them before the European Court to compel action. Council passage of directives therefore cannot be deferred until late 1991 or 1992 if they are to be practically operative by January 1993.

One way to get the 1992 agenda back on track might be to set priorities among the two hundred or so pending legislative items; concentrate on such critical issues as taxes, subsidies, and government procurement; and ignore the rest for now. However expedient, this course would be risky. The Commission has insisted on a "package" approach to the directives, admitting no exceptions. Its intransigence may be working as intended — encouraging members to drop their opposition to particular directives in the knowledge that

other countries would be under pressure to cease opposing directives they, in turn, dislike. Abandoning the package approach now could lead the EC down a slippery slope: postponement of the least important directives could be followed by postponement of increasingly more important ones. It is preferable to stick to the present approach, even if not all the work can be completed on time — so long as the direction is unchanged and the message is clear to Europeans and non-Europeans alike.

Financial market integration

Interest in financial liberalization has reawakened because the internationalization of finance and the growth in intra-European trade have rendered controls undesirable and ineffectual. The 1985 White Paper sought complete liberalization of capital movements, including those of a purely monetary nature not linked to commercial transactions. It also aimed to open up the cross-border market for financial services by removing barriers to entry and the free circulation of financial products. The objective was market integration to bring down the costs of auto insurance, mortgage loans, consumer credit, and brokerage services, which in many countries are inflated by feeble national or international competition. To this end, 27 directives were proposed. Ten have been approved; twelve are being discussed; and five are being drafted.

The aspect needing least legislative work is that of *capital controls*. Countries already have made considerable headway or have pledged it under a recently

Table 2

Capital controls by type of transaction

	Securities		Loans		Other	
	Primary market	Secondary market	Trade related	Other	Deposit accounts	Other*
Belgium**	F/A	F	F	F	F	F
Denmark	F	F	A	A	A	A
France	R/A	F	R	R	F/R	F
Germany	F	F	F	F	F	F
Ireland	A	F/R	F/A	F/A	F/P	F/P
Italy	A/P	F/R	F/A	A	F/P	F/P
Luxembourg**	F/A	F	F	F	F	F
Netherlands	F	F	F	F	F	F
United Kingdom	F	F	F	F	F	F
Greece	A/P	A/P	A	A	R/P	R/P
Portugal	R/A	R/A	A	A	A	A
Spain	A	F/R	A	R/A	F/A	A

The first code refers to capital inflows, the second to outflows.

F Free of controls.

A Subject to authorization.

R Subject to various restrictions as to maturity, size, and use of funds.

P Prohibited, or subject to authorization that is usually not granted.

*Money market instruments such as Treasury bills.

**A dual exchange market is maintained.

Source: European Commission.

approved directive. Britain, Germany, and the Netherlands have freed capital flows completely (see Table 2). Five other countries are to follow suit by mid-1990: Belgium and Luxembourg abolishing their two-tier exchange market; Denmark eliminating prior authorization for certain transactions; and France and Italy allowing residents to hold foreign bank accounts and foreigners to tap their domestic credit markets. Four other nations more reliant on capital controls have been given more time to remove them: until 1992 for Spain and Ireland and until the mid-1990s for Greece and Portugal. Capital flows are to be freed not only within the EC but also with countries outside: restricting movements between, say, Italy and a non-EC member, such as Switzerland, is pointless if such flows can be mediated by another EC country, such as Germany or Britain, that is unwilling

to impose restrictions on flows with Switzerland.

Efforts to let financial firms operate freely across the EC have focused on three areas: banking, securities, and insurance. With respect to *commercial banking*, the Commission has circulated a directive to allow banks to exercise across EC borders the same banking and securities powers that are permitted them at home. A single-license approach would be adopted: banks' operations throughout the EC would be licensed, regulated, and supervised for the most part by their home country — allowing a Dutch bank, for example, to branch into Italy without having to request permission from host authorities — or having to post capital separately at its Italian branch. Given the diversity of national regulatory standards, however, the Commission also has proposed harmonizing accounting norms and essential prudential regulation, such as capital adequacy and limits on equity holdings in nonfinancial firms. Its capital standards recommendation parallels the one recently agreed by twelve central bank governors from the world's leading banking countries — including seven from the EC.

Drafting has begun on a directive covering *investment services*. As in banking, any securities firm reportedly would be able to open branches and market an agreed list of services in other countries. Home-country supervisors would be responsible for the essential regulations such as capital adequacy and the acceptability of major shareholders, while host-country rules would apply to the remainder. The Commission already has submitted a directive banning in-

sider trading and apparently will propose soundness and competence criteria. The EC currently supports the electronic linking of national stock exchanges by subsidizing the exchange of market information in the hope of spawning a screen-based integrated market.

For *insurance services*, the Council recently approved a directive to open up the market for property and casualty insurance for large corporations with home-country control and minimal harmonization; later, in the 1990s, medium-sized contracts will be opened up. Agreement was facilitated by the fact that domestic insurers of major risks long have used techniques such as fronting, coinsurance, and reinsurance to create an international insurance market centered in London. But the Commission has yet to produce directives covering the high-growth potential fields of life and automobile liability insurance. These may not be liberalized before the turn of the century, in part because the European Court is conditioning its approval on adequate harmonization of the consumer protection aspects.

Implications for governments

The legislation on financial services being drafted in Brussels or pending approval by the Council meets resistance from national governments because it limits sovereignty in several respects, notably concerning mutual recognition, reciprocity, and taxation.

To begin with, the principles of mutual recognition and home-country control would increase competition not only among firms across the EC but also

among the different national *regulatory systems*. These systems would be under great pressure to converge, since regulations that limit the ability of a country's own banks to offer certain products — say, the French ban on variable-rate mortgages or the German one on money market funds — disadvantage those banks relative to banks from other EC countries that allow these products. Discriminatory rules and incentives, such as limits on the foreign content of pension or insurance funds or obligations on banks to place money in public securities, likewise would not survive because foreign-owned firms could not be required to abide by them. Some governments, having relied on barriers to trade and market segmentation to enforce credit controls or help finance deficits, are therefore reluctant to support the Commission's proposals.

These principles by no means would deprive national regulators of all discretion. Host countries would oversee risk-taking in the securities markets, control bank liquidity, and set monetary policy. Of course, virtually any financial practice could be deemed to affect monetary policy: central banks could argue that authorizing money market funds to compete with bank deposits or banks to pay interest on demand deposits would destabilize the narrow monetary aggregates — as happened in the United States. The Bundesbank further has argued that allowing money market funds (exempt from reserve requirements) would distort competition at the expense of banks. Yet the surge in deregulation suggests that a growing number of European countries understand that trying to keep a lid on financial innova-

tion damages their own financial centers. Still, even if the proposed directives are adopted, the European Court likely will be hearing, for many years to come, cases in which financial firms challenge local interpretation of the principles of mutual recognition and home-country control.

Ending barriers to the provision of financial services by intermediaries from member states implies the necessity for a *common policy* toward firms headquartered outside the EC — much as the elimination of customs duties on intra-EC trade in the early 1960s brought a common tariff against imports from outside the Community. This is a divisive issue. Hitherto, some countries have been very open to non-EC firms and foreign capital, while others have not; the disparity is not sustainable once entry into one country automatically allows entry into others.

Under the proposed directives on banking and securities, existing *subsidiaries* of non-EC firms are to be treated as Community undertakings, subject to a single license and supervision by the member country in which they are incorporated. *Branches* of non-EC banks, however, would remain under the jurisdiction of the authorities in each of the countries in which they operate. This structure could penalize non-EC banks: to enjoy the freedoms of EC banks, they would have to set up subsidiaries within the EC; that could mean significantly higher borrowing costs, since subsidiaries must hold their own capital whereas branches can draw on the full resources of their parents.

The proposed directives also authorize the Commission to deny entry to firms from a non-EC country that fails to grant

reciprocal treatment to firms from each of the twelve EC member countries. Moreover, there are indications that such *reciprocity* will be applied to foreign-owned commercial and investment banks already operating in the EC.

Governments are beginning to realize, however, that reciprocity could open a Pandora's box. Some countries interpret reciprocity narrowly as requiring "national," nondiscriminatory treatment for EC firms operating abroad — that they be treated the same way as domestic firms. Other countries interpret it broadly as requiring that EC firms abroad should be extended the same rights as foreign firms operating in the Community. This latter definition could lead, for instance, to a demand that Japan and the United States give powers to banks as wide as those typically granted in the EC. Further, it might force Britain or Luxembourg, say, to exclude existing or new Japanese banks if Portugal or Greece felt that any of its banks did not have reciprocal access to the Japanese market. And U.S. banks might be handicapped within the EC because the United States limits interstate banking and restricts banks' equity holdings in non-financial enterprises.

Another concern to governments is that financial market integration will force major changes in *tax systems*. At present, the treatment of interest and dividend income, securities transactions, capital gains, and bank deposits varies a great deal from country to country. For example, Spanish depositors cannot escape taxation on interest income earned at home because of a withholding tax; nor can French depositors because banks in that

Table 3
Withholding taxes
percent of interest and dividend income

	On interest paid to		On dividends paid to	
	Residents	Nonresidents	Residents	Nonresidents
Belgium	25	25	25	25
Denmark	0*	0	30	30
France	**	0-51	0	25
Germany	0***	0***	25	25
Ireland	0-35	0-35	0	0
Italy	12.5-30	12.5-30	10	32
Luxembourg	0	0	15	15
Netherlands	0*	0	25	25
United Kingdom	25	25	0	0
Greece	****	49	42-53	42-53
Portugal	30	30	12	12
Spain	20	20	20	20

Rates indicated are subject to restrictions and exemptions.

*Banks report interest income to the tax authorities.

**Recipients can choose to pay 27% or 47%, depending on the savings instrument, or to lump interest income with other incomes. Banks report interest income to the tax authorities.

***Banks do not report interest income to the tax authorities; a 10% withholding rate will go into effect starting next year.

****Corporations pay 25%; individuals pay 8% plus an amount linked to graduated rates applicable to income taxes.

Source: Arthur Andersen.

country report interest income to the tax authorities (see Table 3). However, they could do so on accounts in, say, Luxembourg or the Netherlands because neither imposes withholding taxes on interest income accrued by residents of other EC countries and further does not report this income to foreign tax authorities. Nonresidents' dividend income poses a similar problem in Ireland and the United Kingdom.

Differences in tax treatment and reporting requirements are offset to some degree by several factors: remaining capital controls, particularly in southern Europe; the fact that most European retail banks do not actively solicit foreign deposits; the local nature of government and corporate bond markets, which deters foreign investors; and the paucity of cross-listings of European companies on the national stock

exchanges. However, these offsets will diminish as markets integrate and intermediaries ply their trade throughout the EC. Awareness of the problem blocked agreement earlier this year on the removal of remaining capital controls — until all the countries further agreed that the Commission should develop proposals to reduce tax evasion in time for a vote by the middle of next year.

Basically, the choice is between changing bank secrecy laws or harmonizing withholding tax rates throughout the EC. The key country to persuade is Luxembourg: if it refuses to amend its secrecy laws or impose a common withholding tax, it would tend to become Europe's leading financial center by virtue of its tax haven status alone. This would not, of course, be acceptable to its EC partners. Yet harmonization may not solve the problem, even if Luxembourg and other holdouts succumb to pressure: unless the agreed withholding is quite low (10% or less), there will be an incentive for tax-flight capital to leak outside the EC — to Switzerland, in the first instance, or such havens as Liechtenstein.

There likewise are major intra-EC variances in capital gains taxes and stamp duties on securities transactions. These too will come under pressure. Capital gains taxes on individuals range from zero in Belgium and Greece (and also in many circumstances in Italy and the Netherlands) to a hefty 50% in Denmark. Stamp duties range from zero to 0.5% of the value of stocks and bonds. As individual financial markets become interconnected by pan-European firms, these differences will encourage transactions to be con-

Table 4
Reserve requirements
as of mid-1988

	% of demand deposits in banks
Belgium	0
Denmark	0
France	5.0
Germany	6.6-12.1
Ireland	10.0
Italy*	25.0**
Luxembourg	0
Netherlands	...
United Kingdom	0.5
Greece*	7.5
Portugal	15.0
Spain*	18.5

*Required reserves are remunerated to some degree.

**Applied against the increase in deposits since May 1984; the effective level of required reserves is close to 20%.

***A small, variable, and remunerated reserve requirement was introduced in May 1988.

summed via the least burdensome routes.

The taxation of monetary assets also varies greatly, as measured by banks' reserve requirements. Those on demand deposits, for instance, range from zero or close to zero in Belgium, Britain, Denmark, and the Netherlands, to 15% or more in Italy, Portugal, and Spain (see Table 4). As yet there are no plans to harmonize the requirements within the EC because they are viewed as instruments of monetary policy — not as a tax driving a wedge between deposit and loan rates. Nevertheless, as banking systems integrate, deposit and loan transactions will be diverted to banks that can offer better interest rates thanks to less onerous reserve requirements. This will put pressure on central banks — probably even on the Bundesbank — to cut requirements to a minimum and rely on other instruments of monetary policy.

Implications for financial firms

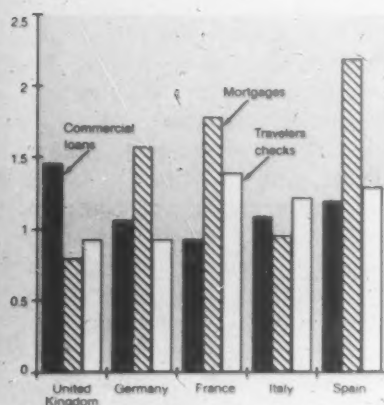
Liberalization and integration are unleashing intense competition and numerous mergers among European financial intermediaries. U.S. experience of banking deregulation in the 1980s has given a preview of what may come to pass. U.S. interstate banking barriers were relaxed about the same time that deposit rate ceilings were phased out, opening new markets to banks just as they were forced to compete more for their customers' funds. Many banks subsequently merged, often across state lines, to pool capital and reach a wider customer base. Others narrowed their focus, specializing to serve selected customers — be they

consumers, middle-market businesses, or large corporations. Virtually all banks sought to cut costs by paring payrolls and branch networks and by adopting explicit pricing for services.

Financial intermediaries in Europe now are shaping strategies for post-1992. Many are looking to expand across borders to compete in markets that are profitable, or can become so once no longer sheltered. A recent study prepared for the EC highlighted the opportunities, finding huge variations in prices for financial services from country to country (see Charts 1-3). These data suggest scope for migration of firms from northern to southern Europe. But there are opportunities for expansion in other directions too. Best placed are firms unburdened by costly labor and management practices, and possessed also of a solid customer base and ample capital. Expansion offers these firms the possibility to widen their product lineup and diversify their assets, liabilities, and revenues.

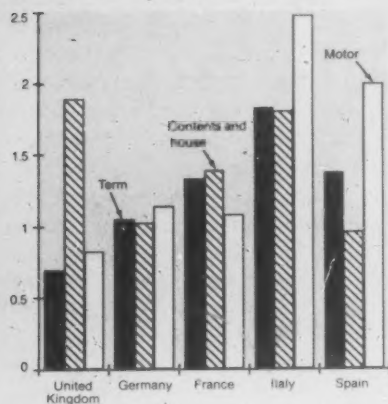
Cost advantages could be gained by *broad financial product lines* using common distribution networks, funding facilities, managers, and support services. A first wave of product broadening is under way in Europe as different types of credit institutions invade one another's traditional turf. A second wave, involving insurance and securities firms as well as different types of banks, is bound to intensify as integration pressures costs. Insurance and securities firms are particularly interested in distributing their products through bank branches to banks' traditional customers. Some banks, in turn, are attracted by insurance companies' investment management abilities and securi-

Chart 1
Prices of banking services
average of four lowest-priced countries = 1



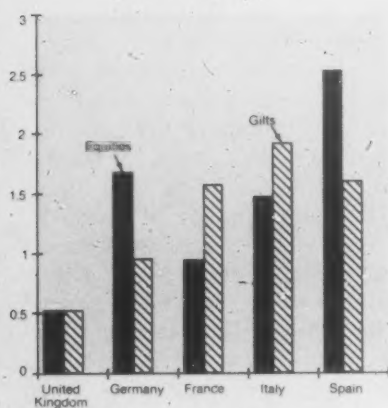
Source: Price Waterhouse.

Chart 2
Prices of insurance services
average of four lowest-priced countries = 1



Source: Price Waterhouse

Chart 3
Prices of institutional securities services
average of four lowest-priced countries = 1



Source: Price Waterhouse

ties firms' research and product innovation skills.

Cross-border expansion also can yield *diversification* benefits. As firms span broader geographic markets, their assets, liabilities, and revenues normally become more diversified. This will be important for banks dependent on such industries as trucking, food, and insurance, which stand to lose the protection afforded by present intra-European barriers. The regional impact of European integration also has implications for financial institutions: over time, for example, cost factors may concentrate European agriculture in the southern regions that enjoy mild weather and cheap labor; in turn, some banks located in these regions could become as farm-dependent and as vulnerable to weather, commodity, and policy cycles as are many banks today in the U.S. Midwest. In principle, diversification through growth can forestall this risk; still, the troubles of some U.S. banks suggest that growth or size alone does not prevent a bank from concentrating its risks unduly.

Cross-border expansion often is thought to promise *economies of scale*. These, however, may elude banks and other financial firms. For them, labor and interest costs do not fall appreciably with volume and typically dwarf the fixed costs associated with offices, computers, and trading floors — the opposite of the variable/fixed cost balance seen in most manufacturing. Adding branches is no sure formula for scale economies in financial services. Concentration in high-volume lines of business may yield savings but, more often than not, they are offset by added costs in other functions; U.S. banks, for example, usually seem

to exhaust size-related economies at a fairly low level of assets (\$50 million).

The other presumed advantage of scale — much in vogue in Europe — is the *protection* that size may afford against hostile takeover. Preemptive mergers, however, are not much defense in a world in which size alone poses less and less of a financial obstacle to predators. Today, admittedly, a financial firm reaching the stature of national giant may be able to call its government in aid against takeover; but this may not apply in tomorrow's Europe. Besides, unless a merger embodies a clear vision for improved profitability, the combined firm may wind up more vulnerable than before.

When deciding how to expand abroad, firms may choose among several avenues, ranging from the direct export of financial products without a physical presence, through cooperative agreements with local distributors, to full representation with branches or subsidiaries, whether *de novo* or by merger or acquisition. The appropriate strategy will depend very much upon the nature of the market — wholesale or retail — into which a firm wants to expand.

Europe's *wholesale* financial markets already are quite competitive. Margins tend to be thin and unrealized profit opportunities few. Conceivably, the lifting of capital controls, the linkage of capital and securities markets, and the expansion of European multinationals could lead to a surge in demand for financial services that only large firms could supply. More realistically, no more than a gradual rise in demand is in the cards. Since this could be accommodated handily by the many institutions

already active, bank mergers aimed at achieving the critical mass necessary to participate in the wholesale markets will make sense only in a limited number of cases.

By contrast, Europe's *retail* financial markets may be headed for quite a shake-up. In several countries these markets are but little competitive. Of course, breaking into a country's consumer banking or auto or life insurance markets is expensive because a retail network of offices or agents is required.*

A network can be established by opening new branches or purchasing a competitor's. New branches allow full control over product quality but take a major investment of effort and time. Few financial firms are likely to follow this route, given the importance of speed and the already overbanked nature of most European countries.

Purchasing a network has its own drawbacks. In such countries as Italy and, to a lesser extent, France and Germany, many banks are owned by federal or provincial governments or are cooperative associations. These banks are not for sale. The attempt to acquire even privately owned institutions can stir nationalistic feelings, precipitate battles for control, and involve a final purchase price well in excess of the target's book value; this "goodwill" excess must be deducted from core capital (as defined by the new BIS-sponsored capital standards), leaving

*In the absence of such a network, customers might possibly be enticed to bank via automatic teller machines or buy mail-order insurance and money-management products. In practice, however, automatic tellers are costly and need a maintenance force, and field agents are required to handle insurance claims. Besides, for financial services, the European public is attached to the personalized attention that a bank with a local presence can provide.

only banks with ample capital as potential buyers. Besides, firms for sale frequently are financially weak and costly to turn around. It often takes many years to digest an acquisition, tying up management to the detriment of other business goals.

Most financial firms therefore may seek *friendly alliances* ranging from agreements to cross-sell products to joint ventures and, in extreme cases, outright mergers. Because of their limited scope, marketing agreements are easiest to negotiate and also, if desired, easiest to dissolve. For example, a British (home) building society and a French government-owned bank might agree to market the former's mortgage products using the latter's client lists; no integration of the two firms' widely different management structures would be needed — a key advantage in the short term, but possibly not cost effective beyond a time. Joint ventures are best suited to firms having medium-term, well-defined objectives for cooperation. Common ownership is in order when long-term, deeper, and more general forms of cooperation are sought. Large financial concerns, if bent on merger, do best to start with mutual shareholdings, which allow the partners to test the waters while keeping the option of aborting the merger before it is too late.

These considerations suggest that competition in retail financial services will gradually increase throughout the EC as legal impediments are removed. Yet no magic wand can be waved in Brussels to make the process easy, even assuming that EC governments reach early agreement on the many issues still unsettled. In sum, the full benefits from abolition of Europe's bar-

riers to financial services provision will take long to materialize.

Implications for London

Traditionally, wholesale banking and securities trading have tended to gravitate to a single location in any given nation, region, or continent — "the" financial center. Such centers develop because a large scale of operation brings costs down and gives depth to markets by enhancing the liquidity of traded assets. For Europe today, London is the center. Project 1992, however, adds to the possibility that London will lose its edge.

Hitherto, London's favorable tax and regulatory environment has attracted business away from Continental centers, where high taxes and restrictions — such as capital controls, entry limits, product regulations, fixed commissions, and queuing — have raised transactions costs. If the European countries now make steady progress toward economic integration and remove the tax and other measures that distort markets, the coming years could see a return of some financial transactions to the Continent — for example, in syndicated lending, reinsurance, and securities underwriting and trading.

Deregulation in centers such as Paris, Madrid, and Amsterdam, combined with some reregulation in London initiated by the Financial Services Act, is eroding remaining fiscal and regulatory differences. In addition, the cost advantage of trading in a single location is losing significance because the new technologies of screen-based trading, computerized clearing, and cheap telecommunications allow some markets to operate efficiently

without all parties present in the same location. Finally, it is generally more efficient and less risky to conduct transactions in a particular currency in its domestic market: the natural supply and demand for investment funds in that currency spring from there, as do the latest bits of information about policy developments that affect prices and flows of assets denominated in that currency. Yet the potential flowering of the Continent's domestic markets need not sound London's death knell. Provided regulators do not impose onerous costs on dealings with investors from outside the EC, London will be a major international financial center for the indefinite future.

The principal threat to London's role lies, rather, in an eventual movement toward a single European currency issued by a European monetary authority. For now, the EC governments are having a hard enough time giving up as much sovereignty as they must in order to comply with the existing Project 1992 agenda. They are not ready to transfer authority over monetary matters to a supranational central bank. Indeed, despite much recent discussion, European integration is nowhere near the stage that can deliver monetary unification.

Some day, at least if Project 1992 is successful, conditions should come together to establish a European central bank in charge of a common currency. Selecting the policy-making location of that putative central bank obviously would be a decision of the highest political magnitude. Establishment of a common currency would set in motion gravitational forces that likely would steer Europe's financial transactions toward a center

close to the central bank's operational heart. Yet, as the example of the U.S. Federal Reserve makes plain, there is no necessity that the policy-making and operating centers of the central bank be in one and the same location: the Reserve Board lays down in Washington policy that is executed by the headquarters of the Federal Reserve's second district in New York. For Europe, politics will dictate the policy center. Market depth should properly point to the operating center. Provided its markets stay competitive, London could lay fair claim to become Europe's "second district."

Potential setbacks

Project 1992 promises to compromise the financial policy autonomy of individual EC members. Governments are likely to tolerate this only as long as each is satisfied with the results — particularly in job creation and economic growth. A perception that some countries are coming out ahead at the expense of others, or that it is possible to do better on one's own, could lead to acrimony and backsliding.

Participants in the exchange rate mechanism (ERM) of the EMS have grown accustomed to bending macroeconomic policy to the objective of maintaining a pegged exchange rate between their currencies and the ECU. An end to exchange controls combined with deeper monetary integration will heighten capital mobility and currency substitution: the share of domestic-currency deposits held abroad will grow as will the share of domestic deposits in foreign currencies. French corporations, for example, increasingly will hold

mark accounts in Germany or France, and may invest their French francs in Germany. This will render the interpretation of money supply data increasingly difficult. Central banks may try switching to targets for domestic credit but, because of easy access to foreign credit, the predictability of links between this — or any other monetary stock or flow — and ultimate objectives, such as real economic growth or inflation, will worsen steadily.

Countries that are neither active EMS participants nor presently open to capital flows (Greece, Portugal, and Spain) will be able to exercise relatively more control over their monetary aggregates if they are willing to permit their exchange rates to fluctuate freely in response to interest rate differentials and the other factors that affect foreign exchange supply and demand. But, even in these countries, the integration of financial markets will intensify currency substitution and complicate the formulation and implementation of monetary policy.

Some countries may come to regret the loss of monetary autonomy and take steps injurious to the integration process. This could happen through failure to narrow sufficiently the sizable tax and regulatory differences now existing within the EC. Opportunities for financial intermediaries to arbitrage these differences away will grow as remaining exchange controls are lifted, firms from different countries reach out or team up to provide better services, and information and transaction costs are driven down by competition. Without substantial progress to approximate taxes and basic rules, capital could move within

Table 5

Real effective exchange rates
1980-82 = 100

	August 1988
Belgium	80.4
Denmark	110.4
France	102.6
Germany	106.0
Ireland	98.2
Italy	103.2
Luxembourg	n.a.
Netherlands	100.4
United Kingdom	94.7
Greece	78.7
Portugal	81.6
Spain	101.7

the Community in ways not all members will find acceptable.

Some governments may not tolerate the consequences of portfolio and direct investment capital leaving in search of the lowest tax and regulatory burden. To neutralize unwanted pressure on exchange rates, central banks will be tempted to intervene. Intervention resources would appear at first sight to be rather ample. The foreign exchange reserves of the twelve EC countries have nearly doubled in ECU terms since the end of 1982, to around ECU215 billion excluding gold. At last year's meetings at Basle and Nyborg the EMS rules were altered to permit earlier access to common resources for intervention purposes. Nevertheless, central banks likely could not offset through intervention alone the kind of massive portfolio shifts that may occur. Pressure on the monetary authorities to forestall major deflationary adjustments in interest rates then could lead either to a realignment of pegged exchange rates or to the imposition of emergency capital controls. The latter would gravely damage the credibility of the integration process.

Yet another possibility that could derail Project 1992 is dispute over intra-European currency relationships and the desirable pace of domestic demand growth throughout the EC. The unification of markets for goods and services increasingly will pit industries in one country against those of the others. Industry's competitiveness in one country depends, in part, upon the strength or weakness of its currency relative to its EC partners'. As integration proceeds, the appropriateness of parities therefore will become a matter of

ever-growing and legitimate concern.

The situation most likely to give rise to intra-EC tensions is that of Germany. The mark has appreciated little in real effective terms since the early 1980s — very little more than the currencies of France, Italy, and some other EC members (see Table 5). This minimal appreciation has done little to correct Germany's supercompetitive position relative to its EC partners. Its trade surplus with the rest of the EC has risen steadily from under DM20 billion in 1983 to an annualized DM78 billion in the first half of this year (see Table 6). These surpluses, should they keep accumulating, are bound to erode confidence in EMS parities and widen interest rate differentials vis-à-vis Germany. Moreover, they are likely to fuel debate on the willingness of the German authorities to subject industry to the competition unleashed by Project 1992.

The problem is compounded by the low growth of domestic demand in Germany — 2.5% on average during 1985-87 and perhaps 3% this year — even as its EC partners have expanded demand close to 4% per annum. It is widely held, in Europe and elsewhere, that the supply-side adjustments that integration will bring depend on demand-side policies supporting strong domestic growth. Unless the German economy picks up, tensions are bound to worsen.

Growth differentials vis-à-vis Germany acutely concern countries in the ERM. The reasons: the Bundesbank provides the anchor for monetary stability in the ERM; its EMS partners attempt to pursue policies consistent with agreed parities; and diminishing obstacles to trade

Table 6

Germany's trade balance
billions of marks,
FOB/CIF basis

	Total	With EC- member countries	EC members as % of total
1983	42.1	18.7	44.5
1984	54.0	26.4	48.9
1985	73.4	31.6	43.1
1986	112.6	51.4	45.7
1987	117.7	62.3	52.9
1988			
1st half*	118.4	76.4	66.2

*Annualized.

and capital flows within the EC tend to eliminate whatever few degrees of freedom from German economic policy the other countries have had. If Germany continues to set its monetary policy solely on the basis of domestic

considerations, it will force the other countries to throttle down economic growth. That, in turn, could spoil the climate for co-operation so vital to the success of Project 1992.

Statistical appendix

*For key to data in tables
see 1988 issue 4, August 17.*

Effective exchange rates —
industrial countries, 16

Real effective exchange rates —
developing countries, 17

International banking market
size, 17

International bond issues and
bank credits, 18

Eurocurrency deposit rates, 19

International bond yields, 19

Central bank discount rates, 20

Day-to-day money rates, 20

Treasury bill rates, 21

Representative money market
rates, 21

Commercial bank deposit
rates, 22

Domestic government bond
yields, 22

Commercial bank lending rates
to prime borrowers, 23

Domestic corporate bond
yields, 23

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Effective exchange rates – industrial countries

–Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1983	114.2	100.8	107.8	92.0	87.3	107.5	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.5	82.2
1984	122.3	97.3	112.9	94.2	84.4	107.3	86.7	88.1	103.6	88.9	103.9	77.4	110.5	93.9	97.8	84.3
1985	127.0	92.8	115.9	76.3	85.5	107.8	82.1	88.2	104.2	89.6	104.0	75.6	109.5	95.1	95.6	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.2	81.6
1987	94.1	89.6	164.4	58.3	87.1	122.0	82.3	79.0	110.8	95.6	114.6	73.1	123.1	102.8	85.7	80.1
1987																
September	93.9	90.3	165.4	60.5	86.9	121.5	81.8	79.6	110.1	95.3	114.4	74.6	122.7	101.0	87.4	79.7
October	93.4	90.7	165.1	58.9	86.7	121.3	81.7	80.0	115.7	95.1	114.5	75.9	122.3	101.3	87.0	79.6
November	90.0	89.3	171.2	54.3	86.7	123.6	81.2	81.5	110.9	95.6	115.9	75.6	125.4	102.5	85.2	79.2
December	87.4	89.4	178.6	55.1	87.0	123.8	81.4	81.9	110.8	95.8	115.9	75.2	126.9	103.0	83.5	78.9
1988																
January	87.4	91.0	179.8	55.1	87.2	123.4	81.3	81.2	110.7	95.6	115.8	74.8	126.5	103.0	84.6	79.1
February	88.2	92.6	179.3	56.0	86.8	122.9	81.0	80.8	110.7	95.4	115.6	75.0	125.1	102.8	85.4	79.7
March	86.8	93.7	180.7	57.0	86.3	122.8	80.5	83.5	110.7	95.2	115.4	75.5	123.9	102.3	85.1	79.9
April	85.8	94.6	183.2	57.5	85.9	122.6	80.1	85.2	110.6	94.9	115.3	76.2	123.6	101.5	88.1	80.1
May	86.1	94.5	183.7	60.0	86.1	122.1	79.7	85.4	110.4	94.8	115.0	76.0	122.2	101.2	87.1	80.4
June	87.6	96.6	182.0	63.7	86.1	121.5	79.4	83.4	110.1	94.5	114.3	75.6	121.8	101.6	87.1	80.3
July	90.1	98.1	177.4	65.0	85.6	120.7	79.2	83.2	109.7	93.9	113.3	74.8	121.2	100.9	86.3	80.5
August	91.7	95.8	175.9	66.1	85.0	120.9	79.0	83.4	109.9	94.0	113.3	74.8	119.4	100.0	85.2	80.3
July 15	90.3	98.1	177.2	64.7	85.6	120.7	79.2	82.4	109.7	94.0	113.4	74.8	121.5	100.8	86.5	80.6
22	90.0	98.7	177.5	65.5	85.4	120.5	79.1	83.5	109.7	93.9	113.2	74.7	121.1	100.7	86.1	80.4
29	90.1	98.0	178.5	65.5	85.3	120.3	79.2	84.3	109.7	93.8	112.9	74.8	120.7	100.7	86.2	80.3
August 5	90.6	98.4	178.2	65.6	85.1	120.1	79.2	84.3	109.6	93.6	112.7	74.9	120.2	100.5	86.2	80.2
12	91.5	97.4	177.8	65.6	84.7	120.0	78.9	84.8	109.5	93.5	112.6	75.0	119.6	99.8	85.7	80.3
19	91.4	96.7	178.3	66.1	84.7	120.2	78.9	84.8	109.6	93.6	112.8	75.2	119.3	99.8	85.4	80.3
26	91.6	96.3	177.7	66.9	84.6	120.6	79.0	83.8	109.8	93.3	113.2	75.2	119.2	99.9	85.3	80.4
Real against 15 other industrial-country currencies																
1983	112.7	102.6	96.8	101.8	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.8	105.1	100.4	102.0	90.8
1984	119.6	100.1	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.0	100.1	99.2	100.5	96.0
1985	121.7	96.3	99.0	88.9	100.4	96.6	100.2	92.8	103.2	85.3	96.5	92.3	97.9	101.2	99.3	96.9
1986	100.9	93.3	122.1	78.4	103.7	103.5	102.5	87.3	106.4	84.5	101.3	93.8	105.4	107.4	96.9	95.9
1987	90.2	96.4	127.9	80.3	105.1	106.7	103.2	87.4	110.0	84.2	104.3	95.7	109.3	111.5	100.3	95.2
1988																
March	84.1	101.8	136.7	81.6	103.6	106.9	103.0	93.5	109.6	81.9	102.7	100.0	109.2	112.4	101.5	97.3
April	83.3	103.2	137.6	82.7	103.3	106.6	102.2	95.7	109.1	81.6	102.9	101.3	108.4	111.6	103.1	97.4
May	83.7	103.0	137.4	86.7	103.4	106.2	102.4	96.0	108.2	81.5	102.4	100.9	106.7	111.8	104.7	97.7
June	85.3	104.9	135.9	92.5	103.5	105.8	102.2	93.8	108.5	80.7	101.4	100.6	106.2	111.9	104.0	98.0
July	88.1	106.3	131.9	94.9	103.0	105.0	101.9	93.4	109.8	80.0	100.7	99.3	105.1	110.6	103.1	98.0
August	89.8	103.7	130.3	96.9	102.4	105.2	101.8	93.9	110.0	80.0	100.7	99.2	103.1	109.8	101.1	97.9
Real against 18 other industrial-country and 22 LDC currencies																
1983	114.9	104.6	100.4	102.0	94.4	100.6	100.8	93.1	102.1	88.2	99.5	89.2	105.1	100.3	101.9	91.0
1984	120.8	102.6	102.4	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.9	91.2	99.8	99.0	100.5	95.8
1985	123.3	99.0	104.2	89.6	99.9	95.6	99.7	92.2	102.8	84.5	94.8	93.0	97.7	101.1	99.7	96.7
1986	106.4	94.3	126.8	80.2	104.3	104.5	103.8	88.0	107.2	85.0	101.1	96.3	107.3	107.8	97.7	96.6
1987	96.3	96.5	131.5	81.9	106.2	109.0	105.7	88.9	111.5	85.4	105.2	99.2	112.2	112.4	101.2	96.5
1988																
March	89.5	101.0	139.2	83.9	104.4	108.7	105.3	95.0	110.9	82.9	103.3	103.2	111.7	113.2	102.4	98.3
April	88.7	102.2	140.0	84.1	103.9	108.2	104.3	97.1	110.3	82.6	103.4	104.5	110.7	112.3	104.1	98.4
May	88.9	102.1	139.8	87.8	103.9	107.6	104.4	97.3	109.9	82.3	102.6	103.9	108.9	112.5	105.6	98.8
June	90.3	104.2	138.6	93.3	103.8	106.9	103.9	94.9	109.4	81.4	101.5	103.3	108.2	112.5	104.8	98.9
July	92.8	105.8	134.9	95.4	103.2	105.8	103.2	94.2	110.5	80.5	100.5	101.7	108.8	111.2	103.8	98.8
August	94.6	103.5	133.9	98.0	102.6	106.0	103.2	94.7	110.7	80.4	100.4	101.7	104.8	110.4	101.9	98.8

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colom- bia	Mexico	Peru	Vene- zuela	Hong Kong	Indo- nesia	Korea	Malaysia	Philip- pines	Singa- pore	Taiwan	Israel	Turkey
1983	71.6	86.0	89.3	104.9	79.0	98.5	117.3	95.0	96.2	97.6	113.9	96.1	101.8	94.6	120.8	94.2
1984	80.2	85.7	90.1	99.6	91.9	105.8	85.9	99.5	96.0	96.5	119.7	107.9	102.5	97.1	119.5	89.6
1985	71.0	84.8	79.5	85.3	90.4	96.5	92.7	103.3	93.7	88.7	115.7	114.1	95.2	94.3	106.5	88.8
1986	60.8	74.2	68.4	67.4	65.0	96.4	85.4	93.3	70.7	82.0	94.0	89.8	79.8	88.4	100.8	70.6
1987	53.3	73.6	65.1	63.1	66.7	107.7	60.2	89.2	54.7	84.0	87.9	86.5	73.3	93.6	97.2	62.6
1987																
September	53.5	71.0	65.3	62.8	71.5	121.1	64.6	90.2	54.8	85.0	88.4	87.1	73.6	97.7	99.8	61.7
October	53.9	73.3	64.3	62.2	73.6	120.0	65.0	90.0	54.8	85.7	87.1	89.2	73.1	98.1	100.6	60.8
November	49.3	73.9	61.7	60.4	73.6	104.9	64.2	89.1	54.4	85.3	84.9	87.4	72.0	94.9	99.3	58.7
December	49.0	74.7	61.4	60.1	67.3	80.2	63.3	87.2	53.0	84.3	82.3	87.8	70.2	96.1	99.0	62.4
1988																
January	49.4	76.9	59.1	61.6	72.6	76.6	62.9	85.8	53.3	85.3	81.5	87.5	70.0	96.6	100.2	62.9
February	50.9	78.0	60.7	67.2	79.0	85.9	62.9	85.9	53.9	88.0	80.7	87.6	70.8	97.5	101.4	63.4
March	51.7	76.9	59.8	66.8	80.1	104.2	62.7	86.5	53.2	89.0	80.2	87.4	70.3	96.4	102.0	64.4
April	52.3	78.3	59.1	66.3	79.7	121.4	62.2	86.6	52.7	89.3	79.7	86.4	70.3	96.0	102.5	65.1
May	55.1	78.0	59.9	64.9	80.1	131.6	62.3	88.4	53.0	90.3	79.4	87.7	70.2	96.2	104.4	64.6
June	56.9	80.7	60.3	65.1	80.8	144.9	63.1	90.2	54.0	92.4	80.7	90.7	70.5	97.3	105.4	65.0
July	60.6	80.8	62.7	66.3	82.9	193.3	64.2	90.8	56.0	95.3	81.6	94.4	71.4	97.4	106.9	66.0
August	59.7	72.9	65.6	57.9	84.1	173.5	65.3	91.3	56.3	97.0	80.9	95.0	72.4	97.5	109.9	63.6

International banking market size

at end of period, billions of dollars

	1982	1983	1984	1985	1986	1987	1988		
					Dec	Jun	Sep	Dec	Mar
Gross claims									
Eurocurrencies, on residents and nonresidents	2 146	2 253	2 359	2 833	3 632	3 979	4 180	4 447	4 493
On nonbanks	634	665	694	822	1 051	1 178	1 216	1 298	1 340
On banks	1 512	1 588	1 665	2 011	2 581	2 801	2 964	3 150	3 153
In dollars	1 694	1 797	1 894	2 101	2 591	2 781	2 910	2 931	2 993
In other currencies	452	456	465	732	1 040	1 198	1 270	1 516	1 500
Domestic currencies, on nonresidents	398	402	402	506	670	754	801	914	915
On nonbanks	132	140	142	187	205	233	230	222	221
On banks	266	262	260	319	465	521	571	692	695
In dollars	211	221	215	215	222	212	220	221	216
In other currencies	187	181	187	291	447	542	581	694	700
Total	2 544	2 655	2 761	3 339	4 302	4 733	4 981	5 362	5 408
On nonbanks	766	805	836	1 009	1 257	1 411	1 446	1 520	1 560
On banks	1 778	1 850	1 925	2 330	3 045	3 322	3 535	3 842	3 848
In dollars	1 905	2 018	2 109	2 316	2 814	2 993	3 130	3 152	3 209
In other currencies	639	637	652	1 023	1 488	1 740	1 851	2 210	2 199
Gross liabilities									
Eurocurrencies, to residents and nonresidents	2 168	2 278	2 386	2 846	3 683	4 032	4 243	4 509	4 561
To nonbanks	432	479	497	585	699	764	780	814	839
To official monetary institutions	91	88	96	112	105	130	144	151	144
To other banks	1 645	1 711	1 793	2 149	2 879	3 137	3 319	3 544	3 577
In dollars	1 741	1 846	1 950	2 147	2 642	2 826	2 972	2 975	3 036
In other currencies	427	432	436	699	1 041	1 206	1 271	1 534	1 526
Domestic currencies, to nonresidents	250	260	280	377	489	572	638	737	738
To nonbanks	70	73	80	114	151	178	176	145	157
To banks	180	187	200	263	338	394	462	592	581
In dollars	116	135	146	169	187	189	212	216	207
In other currencies	134	125	134	208	302	383	426	521	532
Total	2 418	2 538	2 666	3 223	4 172	4 603	4 881	5 246	5 299
To nonbanks	502	552	577	699	850	941	956	959	997
To banks and official institutions	1 916	1 986	2 089	2 524	3 321	3 662	3 925	4 287	4 303
In dollars	1 857	1 981	2 096	2 316	2 829	3 015	3 183	3 190	3 242
In other currencies	561	557	570	907	1 343	1 589	1 697	2 055	2 057
Net market size	1 285	1 382	1 430	1 676	2 076	2 290	2 384	2 584	2 587

International bond issues and bank credits

millions of dollars

	1985	1986	1987	1988			Jan-Jun	
				Apr	May	Jun	1987	1988
By country of borrower								
Industrial countries	225 885	273 653	253 718	28 414	26 378	26 014	122 860	170 533
Australia	14 407	19 251	12 896	1 735	1 568	738	6 003	7 121
Austria	2 435	3 821	4 956	991	180	626	2 279	4 696
Belgium	3 269	5 042	4 537	81	561	474	2 484	2 583
Canada	17 184	23 752	11 356	1 570	1 429	1 941	5 759	9 567
Denmark	3 589	9 813	4 983	691	325	395	3 748	2 692
Finland	1 846	3 578	3 625	190	880	412	2 118	2 993
France	18 773	20 027	15 725	2 284	2 539	2 922	7 847	16 591
Germany	3 452	12 589	10 575	729	290	545	6 674	4 625
Greece	1 587	1 361	1 462	—	119	159	676	628
Ireland	1 881	3 281	2 289	150	43	227	1 069	982
Italy	11 033	12 723	13 551	707	691	466	4 147	4 537
Japan	21 269	35 283	46 523	4 070	2 415	8 214	21 731	24 548
Netherlands	2 299	3 215	5 455	383	645	490	2 946	3 234
New Zealand	2 707	7 818	6 400	402	1 630	—	2 973	2 780
Norway	3 905	6 750	6 051	888	564	634	3 647	4 443
Portugal	2 382	2 503	2 159	362	—	—	1 346	1 051
Spain	3 913	7 083	1 932	250	82	329	896	1 604
Sweden	9 890	8 000	5 799	1 889	985	639	3 679	7 187
Switzerland	864	2 247	1 201	664	250	—	635	915
United Kingdom	25 424	24 109	33 025	4 681	5 915	3 318	17 004	29 751
United States	69 193	55 703	45 867	3 598	4 813	3 095	23 258	29 174
Other*	4 582	5 703	13 350	2 099	454	387	1 940	8 856
Developing countries	32 964	23 884	29 195	1 005	2 155	921	16 611	12 444
Latin American countries	8 115	3 395	10 789	94	130	214	8 163	4 203
Argentina	3 700	17	2 305	—	—	—	—	—
Brazil	—	350	—	—	—	—	—	—
Chile	1 085	—	—	—	—	—	—	—
Colombia	1 052	240	137	—	—	—	50	1 000
Mexico	109	313	7 700	—	—	—	7 700	2 556
Venezuela	48	—	30	34	—	—	—	134
Other**	2 121	2 475	617	60	130	214	413	513
Asian countries	18 410	14 444	13 782	617	950	707	6 421	5 664
China	3 192	3 336	4 678	324	520	97	2 049	1 702
India	818	1 795	2 359	82	120	15	960	1 147
Indonesia	451	1 343	1 770	—	30	—	835	330
Hong Kong	2 516	848	323	28	81	—	386	188
Korea	5 898	3 251	2 938	98	115	50	1 496	767
Malaysia	2 219	1 204	554	60	—	69	250	636
Thailand	1 497	1 676	348	—	21	375	169	696
Other	1 819	990	812	25	63	102	276	197
Middle Eastern and African countries	6 439	6 044	4 624	294	1 075	—	2 026	2 577
Algeria	1 450	1 344	471	—	56	—	241	389
Turkey	1 203	2 754	3 187	294	790	—	1 339	1 733
Other	3 786	1 945	925	—	228	—	446	455
Eastern European countries	5 236	3 941	3 716	150	150	389	1 757	1 079
Hungary	1 577	1 315	1 951	—	—	314	714	632
Soviet Union	1 489	1 821	1 003	50	150	—	662	273
Other***	2 169	805	762	100	—	75	380	175
International organizations****	20 635	19 896	20 814	1 624	1 072	2895	9 424	11 761
By type of instrument and currency								
International bond issues	167 756	228 106	180 788	19 548	19 055	24 001	100 783	119 312
Eurobonds	136 731	188 747	140 535	16 249	15 476	20 964	85 389	95 688
U.S. dollar	97 782	119 096	58 070	4 805	4 858	10 910	31 235	38 439
Japanese yen	6 539	18 516	22 563	3 098	1 961	1 479	17 145	9 537
German mark	9 491	17 127	15 023	1 413	1 873	889	9 479	11 581
British pound	5 766	10 585	15 051	3 184	3 215	2 665	9 278	15 287
Australian dollar	3 118	3 381	8 826	1 111	989	578	6 052	4 168
European composite units	7 038	7 057	7 397	765	927	1 517	5 262	5 138
Canadian dollar	2 822	5 067	6 003	1 196	1 306	1 769	3 337	7 519
Other	4 174	7 918	7 602	679	347	1 157	3 601	4 019
Foreign bonds	31 025	39 359	40 253	3 299	3 579	3 037	15 393	23 623
Swiss franc	14 954	23 213	24 301	2 148	2 118	2 757	10 301	16 086
U.S. dollar	4 655	6 782	7 416	356	550	—	1 750	2 585
Japanese yen	6 379	5 223	4 071	484	481	143	1 726	2 625
Other	5 037	4 141	4 465	311	429	137	1 616	2 327
International bank credits	116 964	93 269	126 655	11 645	10 701	6 219	49 869	76 505
Eurocurrency credits	110 317	84 208	115 312	10 455	10 543	5 421	45 749	73 201
Foreign credits	6 647	9 061	11 343	1 190	158	798	4 120	3 304
Total	284 720	321 375	307 443	31 193	29 756	30 219	150 651	195 817

*Includes multinational organizations.

**Includes unallocated.

***Includes COMECON institutions.

****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1985	1986	1987	1988						
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug
Eurodollar										
overnight	12.25	22.00	6.75	6.69	6.75	6.88	7.31	7.44	7.56	7.75
one month	8.00	6.50	7.06	6.69	6.69	7.00	7.44	7.69	8.00	8.31
three months	7.88	6.25	7.37	6.69	6.81	7.19	7.63	7.81	8.31	8.50
six months	7.88	6.12	7.50	6.75	7.06	7.44	7.81	7.94	8.50	8.88
twelve months	7.94	6.12	7.81	7.12	7.44	7.88	8.31	8.25	8.75	9.06
Euro-Canadian dollar										
one month	9.00	8.00	8.00	8.25	8.25	8.44	8.81	8.69	9.00	9.75
three months	9.00	8.12	8.12	8.37	8.37	8.75	8.94	9.06	9.38	10.00
six months	9.00	8.19	8.44	8.37	8.62	8.88	9.19	9.31	9.63	10.50
twelve months	9.00	8.31	8.87	8.75	9.00	9.25	9.63	9.63	10.00	10.75
Euro-French franc										
one month	12.50	10.12	8.75	7.25	7.81	8.00	7.31	7.25	7.13	7.69
three months	13.00	10.37	9.00	7.75	8.31	8.25	7.50	7.38	7.38	8.06
six months	13.13	9.75	9.25	8.19	8.44	8.38	7.63	7.63	7.75	8.44
twelve months	12.25	8.75	9.25	8.50	8.56	8.50	8.00	7.88	8.06	8.75
Euromark										
one month	4.75	5.12	3.25	3.31	3.25	3.31	3.31	4.25	5.00	4.94
three months	4.75	4.87	3.37	3.31	3.31	3.44	3.56	4.38	5.06	5.13
six months	4.75	4.81	3.50	3.37	3.37	3.63	3.81	4.50	5.31	5.38
twelve months	4.81	4.81	3.75	3.50	3.56	3.81	4.19	4.69	5.50	5.50
Euro-Dutch guilder										
one month	5.75	6.31	4.50	3.94	3.87	3.88	3.81	3.94	5.00	5.31
three months	5.75	6.00	4.62	4.00	3.87	3.94	3.94	4.31	5.25	5.44
six months	5.81	5.87	4.69	4.06	4.06	4.06	4.13	4.56	5.44	5.69
twelve months	5.88	5.81	4.81	4.12	4.19	4.19	4.44	4.81	5.50	5.81
Euro-Swiss franc										
one month	3.88	3.94	2.50	1.37	1.62	2.06	2.81	3.38	3.44	3.56
three months	4.00	3.94	3.00	1.69	1.87	2.25	2.88	3.44	3.88	3.75
six months	4.00	3.87	3.19	2.12	2.19	2.44	2.94	3.56	4.13	4.00
twelve months	4.06	3.87	3.25	2.69	2.62	2.75	3.13	3.63	4.25	4.00
Eurosterling										
one month	11.69	11.12	8.56	9.00	8.44	8.06	7.38	9.38	10.38	12.06
three months	11.81	11.12	8.81	9.31	8.56	8.31	7.75	9.94	10.81	12.25
six months	11.81	11.06	9.00	9.50	8.69	8.69	8.25	10.06	10.88	12.19
twelve months	11.69	11.06	9.31	9.75	9.00	9.06	8.81	10.25	11.00	12.19
Euroyen										
one month	7.13	4.56	4.00	4.37	4.00	3.81	4.06	4.13	4.38	5.00
three months	6.56	4.50	4.12	4.19	4.00	3.94	4.06	4.38	4.63	4.94
six months	6.50	4.37	4.12	4.19	4.12	4.13	4.25	4.56	4.75	5.00
twelve months	6.38	4.31	4.12	4.19	4.19	4.25	4.31	4.69	4.75	5.06
European currency unit										
one month	9.63	8.56	6.62	6.12	6.19	6.13	5.63	5.06	6.94	7.19
three months	9.63	8.44	6.75	6.31	6.37	6.38	6.00	6.44	7.25	7.44
six months	9.63	8.06	6.87	6.44	6.44	6.50	6.31	6.69	7.56	7.81
twelve months	9.63	7.31	7.00	6.62	6.62	6.69	6.56	6.94	7.69	8.00

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1985	1986	1987	1988						
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
Eurodollar	9.68	8.67	9.99	10.95	10.41	10.21	10.31	10.24	9.79	9.78
Euromark	6.73	6.62	6.82	6.87	7.04	6.74	6.69	6.54	6.27	6.33
Swiss franc	5.49	5.70	5.43	5.50	5.83	5.56	5.71	5.57	5.66	5.61
European governments										
Eurodollar	10.52	9.91	11.41	11.81	11.63	11.63	11.64	11.48	11.38	11.50
Euromark	7.03	6.77	6.65	6.76	6.61	6.61	6.21	6.23	6.07	6.06
Swiss franc	4.91	4.51	4.38	4.39	4.54	4.15	4.11	4.05	3.71	3.88
European currency unit	10.23	10.20	10.43	10.46	11.10	11.06	10.84	10.85	10.58	10.35

Central bank discount rates

at or near end of month

	1985	1986	1987	1988					Current	
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep 7 1988	effective since
United States	7.50	5.50	6.00	6.00	6.00	6.00	6.00	6.50	6.50	Aug 9, 88
Canada	9.49	8.49	8.66	9.12	9.17	9.44	9.54	10.03	10.23	Sep 1, 88
Austria	4.00	4.00	3.00	3.00	3.00	3.00	3.50	4.00	4.00	Aug 28, 88
Belgium	9.75	8.00	7.00	6.50	6.50	6.75	7.00	7.50	7.50	Aug 26, 88
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.00	7.00	7.00	7.00	8.00	8.00	8.00	8.00	8.00	May 16, 88
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	3.50	2.50	2.50	2.50	3.00	3.00	3.50	3.50	Aug 26, 88
Ireland	10.25	13.25	9.25	8.50	8.00	8.00	8.00	8.00	8.00	May 30, 88
Italy	15.00	12.00	12.00	12.00	12.00	12.00	12.00	12.50	12.50	Aug 26, 88
Netherlands	5.00	4.50	3.75	3.25	3.25	3.50	3.75	4.00	4.00	Aug 26, 88
Portugal	19.00	16.00	14.50	14.00	13.50	13.50	13.50	n.a.	13.50	May, 88
Spain	8.00	8.00	8.00	8.00	8.00	8.00	9.00	8.00	8.00	Jul 26, 77
Sweden	10.50	7.50	7.50	8.50	8.50	8.50	8.50	8.50	8.50	Apr 29, 88
Switzerland	4.00	4.00	2.50	2.50	2.50	2.50	2.50	3.00	3.00	Aug 26, 88
United Kingdom	11.31	10.81	8.37	7.88	7.38	9.38	10.38	11.81	11.81	Aug 31, 88
Japan	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	19.80	24.60	18.55	19.70	17.30	16.95	16.90	15.90	16.30	Sep 7, 88
South Africa	13.50	10.00	9.80	10.80	11.80	11.80	12.80	n.a.	12.80	Aug, 88
Argentina*	5.00	11.19	17.59	19.10	21.58	23.04	27.80	13.13	13.13	Aug, 88
Korea	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	11.50	9.64	9.25	9.09	9.10	n.a.	n.a.	n.a.	n.a.	
Singapore	5.00	5.00	5.00	3.50	3.50	3.50	3.50	4.00	4.00	Aug, 88
Thailand	11.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 88
Venezuela	12.94	12.79	12.49	12.92	12.90	12.96	n.a.	n.a.	12.96	Jun, 88

*Percent per month.

Day-to-day money rates

monthly averages

	1985	1986	1987	1988							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	8.27	6.91	6.77	6.83	6.58	6.58	6.87	7.09	7.51	7.75	8.01
Canada	9.15	8.30	8.45	8.55	8.43	8.46	8.42	8.71	8.89	9.03	n.a.
Austria	7.25	7.62	4.10	4.50	3.50	3.50	3.65	3.60	4.05	5.75	4.60
Belgium	6.60	5.09	5.09	5.02	4.16	5.10	5.05	4.28	4.62	4.85	5.08
Finland	n.a.	11.87	8.01	8.09	8.20	8.62	8.26	8.13	8.01	n.a.	n.a.
France	9.02	7.80	8.23	7.80	7.26	7.54	7.55	7.34	7.11	7.19	7.38
Germany	4.64	5.00	3.19	3.13	3.32	3.24	3.25	3.30	3.74	4.44	4.67
Ireland	9.62	13.00	7.50	8.00	8.50	8.25	8.00	7.38	n.a.	7.38	n.a.
Italy	14.75	11.42	10.25	10.60	9.87	10.14	9.95	11.41	11.27	11.00	10.10
Netherlands	5.75	6.19	4.25	4.12	3.87	3.94	4.00	3.94	3.69	4.55	5.00
Norway	12.50	14.00	14.02	13.88	13.87	13.91	14.03	13.51	13.00	13.04	n.a.
Spain	9.92	11.76	14.02	13.20	12.13	11.40	11.01	10.81	10.47	10.45	10.39
Sweden	11.83	8.89	8.43	8.75	9.37	9.61	9.71	10.58	10.55	10.46	9.85
Switzerland	2.00	1.12	0.50	0.50	1.00	1.25	2.13	2.25	2.50	3.38	2.25
United Kingdom	9.72	9.13	7.60	8.26	8.28	8.55	8.13	7.51	9.25	8.99	9.97
Australia	18.37	15.40	10.37	10.23	10.25	10.33	10.36	11.20	11.79	12.15	12.43
Japan	8.02	4.18	3.81	3.54	3.39	3.53	3.34	3.24	3.42	3.65	3.78
South Africa	12.50	8.50	9.76	9.75	9.25	9.85	10.00	10.90	11.34	11.75	n.a.
Argentina*	4.50	7.00	14.90	16.40	14.90	17.60	18.18	19.70	22.60	26.10	12.80
Brazil	352.23	82.05	401.42	543.31	655.13	530.86	814.16	678.42	806.89	1312.47	1056.54
Hong Kong	6.10	3.90	0.56	0.58	1.83	2.84	3.64	6.02	7.21	7.09	7.65
Korea	8.80	9.00	9.20	9.30	9.20	9.40	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	15.03	9.92	22.53	14.94	9.41	13.86	15.66	13.66	n.a.	n.a.	n.a.
Singapore	4.53	3.51	2.57	2.73	2.93	3.01	3.08	3.56	3.67	3.97	4.44
Taiwan	4.50	4.00	4.56	5.11	5.52	5.37	5.23	4.37	5.65	n.a.	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1985	1986	1987	1988							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	7.28	5.83	5.84	5.80	5.78	5.87	6.15	6.67	6.59	6.95	7.54
Canada	9.24	8.24	8.41	8.37	8.32	8.53	8.87	8.92	9.19	9.29	9.78
Belgium	9.89	7.50	8.84	6.44	6.24	6.18	6.18	6.18	6.18	7.20	7.60
Ireland	11.15	13.60	8.69	8.34	8.76	8.33	7.83	7.17	7.47	7.61	7.76
Italy	13.10	10.00	11.66	11.37	10.78	10.78	10.81	10.82	10.63	11.06	n.a.
Netherlands	5.69	6.37	4.95	4.75	4.25	4.12	4.38	4.25	4.13	5.38	5.38
Spain	9.52	8.37	6.67	5.56	5.83	10.17	n.a.	10.25	n.a.	10.16	10.10
Sweden	12.49	9.20	9.05	9.20	9.32	9.58	10.70	10.29	10.37	10.50	10.55
United Kingdom	11.49	10.79	8.38	8.38	9.01	8.26	7.98	7.28	9.24	10.53	11.83
Australia	19.40	14.91	10.06	9.92	10.44	9.83	10.40	11.60	11.31	12.10	12.58
Japan	4.91	2.89	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	17.62	19.69	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	12.99	8.84	8.85	9.49	9.55	10.51	10.97	11.61	11.91	12.06	12.71
Brazil	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	72.98	104.03	133.04	155.67	153.86	75.16	54.51	44.81	33.01	32.45	32.45
Philippines	16.45	9.55	13.35	13.52	11.57	13.88	14.94	15.10	14.36	14.50	n.a.
Singapore	2.94	2.10	3.23	2.92	2.97	2.97	3.02	3.36	3.90	3.87	4.11

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1985	1986	1987	1988							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	8.02	6.64	7.21	6.90	6.77	6.90	7.20	7.75	7.87	8.29	8.66
Canada	9.40	8.35	8.90	8.65	8.55	8.65	9.00	9.30	9.26	9.55	10.15
Belgium	9.89	7.60	6.97	6.65	6.37	6.26	6.24	6.24	6.24	7.35	7.65
France	9.12	8.37	8.56	8.06	7.44	8.25	7.88	7.31	7.31	7.44	8.06
Germany	4.80	4.85	3.65	3.23	3.28	3.40	3.55	3.60	4.40	5.20	5.35
Ireland	12.00	14.06	8.81	8.62	8.94	8.38	8.13	7.38	7.87	7.87	9.00
Italy	15.13	11.37	11.50	10.75	11.13	11.13	10.38	11.00	10.88	11.25	10.88
Netherlands	5.75	6.19	4.56	4.32	4.06	4.06	4.13	4.19	4.56	5.44	5.69
Portugal	20.71	16.07	14.34	13.97	13.43	13.03	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	10.51	11.79	13.59	12.30	12.01	11.06	10.90	11.11	10.44	10.79	10.75
Switzerland	4.75	4.50	3.56	1.69	1.81	1.88	2.13	2.75	3.31	4.00	3.69
United Kingdom	12.75	11.25	8.94	8.31	9.38	8.56	8.31	7.81	9.88	10.94	12.19
Australia	19.75	15.10	11.25	10.85	10.90	11.50	11.55	12.87	13.20	13.15	13.60
Japan	7.03	4.34	3.90	3.85	3.80	3.80	3.75	3.80	3.84	3.97	4.15
New Zealand	20.00	24.25	17.70	17.00	17.35	n.a.	17.20	15.75	15.70	15.20	14.40
South Africa	13.35	8.55	8.90	9.60	10.25	10.90	11.85	12.65	12.10	12.65	13.60
Chile	22.42	19.56	15.25	11.35	10.69	21.41	20.84	11.09	9.90	n.a.	n.a.
Hong Kong	6.50	4.62	1.50	3.00	3.87	4.12	5.13	7.31	8.00	8.50	8.88
Indonesia	15.00	19.50	17.50	17.00	18.50	22.50	18.50	19.00	18.75	19.25	19.50
Korea	8.00	8.00	7.50	7.50	7.50	7.50	7.50	7.50	7.50	n.a.	n.a.
Malaysia	8.20	6.00	n.a.	n.a.	n.a.	n.a.	3.70	3.85	3.85	3.55	n.a.
Philippines	14.61	8.31	10.55	12.12	10.21	11.30	12.75	12.75	13.00	13.50	13.50
Singapore	5.88	3.94	3.25	3.13	3.13	3.19	n.a.	n.a.	n.a.	n.a.	n.a.
Taiwan	4.10	3.87	3.09	4.12	4.47	4.23	4.48	4.30	5.29	n.a.	n.a.

Commercial bank deposit rates

at or near end of month

	1985	1986	1987	1988							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	7.72	6.26	7.10	6.67	6.57	6.69	7.05	7.54	7.65	8.11	8.38
Canada	7.75	7.95	8.40	8.50	8.45	8.60	8.31	8.99	9.25	9.36	n.a.
Austria	6.50	5.50	4.25	4.40	4.05	3.90	3.90	3.95	4.35	5.60	5.40
Belgium	9.63	7.44	6.69	6.31	6.25	6.19	6.00	6.06	6.25	7.13	7.43
Denmark	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.50	5.50	n.a.
Finland	10.75	13.36	10.12	9.10	9.54	9.62	9.41	9.35	9.15	9.45	10.60
France	6.24	8.19	8.63	8.19	7.69	8.25	7.69	7.31	7.19	7.25	7.81
Germany	4.40	4.80	3.50	3.20	3.20	3.25	3.40	3.40	3.30	4.90	5.25
Ireland	11.87	13.75	8.62	8.50	8.75	8.25	7.75	7.25	7.56	7.75	n.a.
Italy	13.21	10.69	n.a.	n.a.	n.a.	n.a.	9.50	9.50	9.50	9.30	9.15
Netherlands	5.81	6.06	4.50	4.21	3.94	4.00	4.06	4.06	4.44	5.31	5.56
Norway	12.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	20.00	15.00	14.00	14.00	13.50	13.50	13.50	13.00	13.06	13.00	n.a.
Spain	9.64	8.67	9.48	9.39	9.30	9.17	9.05	9.03	9.04	9.96	n.a.
Sweden	12.18	9.93	9.45	9.55	9.55	9.95	10.95	10.60	10.45	10.65	10.90
Switzerland	4.50	4.25	3.37	1.44	1.56	1.63	1.88	2.50	3.06	3.75	3.44
United Kingdom	11.75	11.19	8.81	8.75	9.25	8.37	8.13	7.63	9.75	10.75	12.13
Australia	18.80	15.56	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Japan	7.04	4.55	4.42	4.33	4.41	4.38	4.25	4.30	4.37	4.75	4.80
New Zealand	19.98	23.50	16.85	16.00	n.a.	14.60	15.50	15.50	15.30	15.00	14.05
South Africa	13.20	8.65	10.25	11.20	11.90	11.90	12.70	14.00	13.00	13.85	14.70
Argentina*	5.40	8.41	14.00	15.12	14.30	17.10	18.10	18.70	21.50	24.30	13.21
Brazil	18.00	220.00	517.36	524.40	554.64	536.08	660.50	692.71	658.19	783.62	n.a.
Chile	23.60	20.98	14.84	11.75	9.25	19.84	17.73	9.77	6.42	n.a.	n.a.
Hong Kong	6.50	4.62	1.50	3.00	3.87	4.12	5.13	7.31	8.00	8.50	8.88
Korea	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.
Malaysia	7.00	6.33	n.a.	n.a.	n.a.	n.a.	3.50	3.85	3.85	3.60	3.20
Mexico	72.90	94.30	120.35	118.99	118.80	75.97	53.01	45.27	32.57	29.90	29.90
Philippines	12.34	7.75	11.19	9.65	9.27	10.09	12.00	11.68	12.95	n.a.	n.a.
Singapore	5.26	4.00	3.13	3.06	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Taiwan	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	n.a.	n.a.
Venezuela	8.00	8.00	8.95	8.97	8.94	8.85	8.96	8.94	8.95	8.95	n.a.

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1985	1986	1987	1988							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	9.49	7.79	8.95	8.42	8.39	8.82	9.11	9.30	8.87	9.23	9.33
Canada	9.61	8.74	10.02	9.31	9.13	9.61	9.84	9.86	9.68	10.00	10.33
Austria	7.61	7.33	6.89	6.83	6.80	6.71	6.62	6.61	6.62	6.61	6.76
Belgium	9.60	7.70	8.04	7.58	7.38	7.65	7.62	7.89	7.88	8.05	n.a.
Denmark	9.67	11.70	12.05	11.18	10.91	11.22	11.44	10.71	10.38	10.19	n.a.
Finland	11.07	10.26	7.67	7.40	7.40	7.41	7.43	7.15	7.19	7.18	n.a.
France	10.47	8.94	9.99	9.49	9.11	9.36	9.26	9.09	8.82	9.07	9.29
Germany	6.57	6.25	6.51	6.50	6.28	6.30	6.53	6.66	6.67	6.86	6.81
Ireland	11.84	12.97	10.45	10.61	10.41	10.12	9.74	9.00	9.60	9.68	n.a.
Italy	13.66	10.05	10.50	10.29	10.30	10.29	10.39	10.49	10.47	10.61	n.a.
Netherlands	6.96	6.40	6.32	6.17	5.99	6.01	6.21	6.36	6.46	6.59	6.64
Norway	13.00	13.24	13.29	13.35	13.16	13.24	13.23	12.84	12.60	n.a.	n.a.
Portugal	16.64	14.49	14.82	14.72	14.47	14.05	14.09	13.48	n.a.	n.a.	n.a.
Spain	12.52	10.36	13.44	12.64	12.35	11.61	11.07	11.30	10.86	11.06	11.80
Sweden	12.11	10.68	11.39	11.30	10.96	11.05	11.41	11.21	11.06	11.26	11.37
Switzerland	4.42	4.05	3.95	3.94	3.93	3.92	3.77	3.38	4.01	4.29	4.26
United Kingdom	10.51	10.29	9.51	9.29	9.14	9.00	9.23	9.29	9.55	9.46	9.71
Australia	14.85	13.40	12.85	12.40	12.30	11.90	11.50	12.30	11.95	11.96	11.81
Japan	5.92	4.98	4.88	4.23	4.36	4.43	4.45	4.60	4.86	4.90	5.37
New Zealand	17.00	16.00	14.30	14.00	13.30	12.90	13.31	12.94	13.32	13.14	12.75
South Africa	18.09	15.06	15.70	16.80	16.52	16.60	16.48	16.40	16.06	16.17	16.08
Philippines	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.
Venezuela	12.00	12.00	12.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1985	1986	1987	1988							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	9.50	7.50	8.75	8.50	8.50	8.50	8.50	9.00	9.00	9.50	10.00
Canada	10.00	9.75	9.75	9.75	9.75	9.75	10.25	10.25	10.75	10.75	11.25
Austria	9.00	9.00	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.75
Belgium	11.50	9.75	8.75	8.75	8.50	8.50	8.50	8.50	8.50	9.00	n.a.
Denmark	8.50	8.00	9.50	9.50	9.50	9.50	9.50	9.50	9.25	9.25	n.a.
Finland	10.37	8.81	8.99	9.03	9.05	9.07	9.12	9.89	9.89	n.a.	n.a.
France	10.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.25	9.25
Germany	7.25	6.75	6.25	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Ireland	12.50	15.75	11.50	11.50	11.50	11.50	11.25	11.25	n.a.	10.75	n.a.
Italy	15.88	13.00	13.00	12.50	12.62	12.62	12.63	12.63	12.50	12.50	12.63
Netherlands	6.25	7.12	4.87	4.62	4.25	4.12	4.38	4.25	4.25	5.25	5.63
Norway	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	22.50	17.50	18.50	18.50	18.00	18.00	18.00	17.00	17.00	17.00	n.a.
Spain	14.75	14.22	16.34	16.10	15.76	15.42	15.23	14.79	14.33	14.08	12.77
Sweden	15.05	11.50	11.50	11.50	11.50	11.50	11.50	12.00	12.00	12.00	12.00
Switzerland	6.00	5.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	11.50	11.00	8.50	8.50	9.00	8.50	8.00	7.50	9.50	10.50	12.00
Australia	21.00	18.50	14.00	13.50	13.50	13.50	13.75	14.50	15.00	n.a.	n.a.
Japan	5.50	3.75	3.37	3.37	3.37	3.37	3.38	3.38	3.38	3.38	3.38
New Zealand	21.00	23.00	18.75	18.75	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	16.50	12.00	12.50	13.00	13.00	14.00	14.00	15.00	15.00	16.00	16.00
Argentina*	7.30	11.30	14.80	15.80	15.00	17.80	17.92	19.50	22.70	25.60	14.04
Brazil**	19.00	250.00	19.50	12.60	13.65	13.70	11.20	13.70	12.40	12.10	15.70
Chile	33.34	29.13	30.99	21.22	20.51	25.49	31.64	21.88	18.51	n.a.	n.a.
Hong Kong	7.00	6.50	5.50	5.25	6.00	6.00	6.50	7.50	8.50	9.00	9.50
Indonesia	18.75	19.75	20.50	20.50	20.50	20.50	21.00	22.00	22.00	22.00	22.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	10.50	10.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	65.66	95.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	15.00	10.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	7.20	6.10	6.10	5.98	5.93	5.85	5.85	5.85	5.85	5.85	6.05
Taiwan	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	n.a.
Venezuela	13.00	13.00	13.00	12.63	12.68	12.58	12.73	12.65	12.72	12.71	n.a.

*Percent per month.

**Spread above monetary correction until Feb. 86; nominal rate of interest until Jan. 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1985	1986	1987	1988							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	10.15	8.88	9.90	9.38	9.45	9.85	10.25	10.38	10.13	10.20	10.10
Canada	10.74	10.18	10.95	10.37	9.96	n.a.	10.97	10.86	n.a.	n.a.	n.a.
France	11.76	10.18	10.92	10.38	9.91	10.03	9.78	9.77	9.60	9.40	n.a.
Germany	6.90	6.50	6.70	6.70	6.70	6.60	6.60	6.80	6.80	6.80	n.a.
Netherlands	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.
Spain	14.92	13.40	15.12	13.66	12.96	12.54	11.28	11.51	11.83	11.87	11.14
Sweden	13.25	11.99	12.31	12.20	11.83	11.94	12.20	12.15	11.45	11.70	12.30
Switzerland	4.93	4.72	4.60	4.50	4.39	4.39	4.29	4.36	4.46	4.44	4.61
United Kingdom	11.47	11.71	11.11	10.76	10.82	10.66	10.55	10.69	10.79	10.86	11.12
Japan	6.79	5.93	5.32	5.06	5.03	4.99	4.93	4.95	4.97	n.a.	n.a.
Korea	13.60	12.80	12.80	12.80	13.20	13.70	13.90	14.90	15.10	15.20	n.a.
Venezuela	17.00	17.00	18.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

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